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ABSTRACT

This monograph contains four reports of studies dealing with the impact of secondary home economics programs in five states on child development and parenting. (The states involved were Ohio, Minnesota, New Mexico, Wisconsin, and Iowa.) Chapter 1 details the assessment of child development and parenting programs in the five states that used a pretest-posttest design involving child development/parenting students and a comparison group. This study found that students in child development/parenting semester-length courses start and end these courses with greater knowledge than comparison groups. Chapters 2 through 4 contain separate analyses of data for three states. Chapter 2 reports that Iowa secondary students who have taken a consumer and homemaking course addressing child development/parenthood education concepts score better than those who have not. Chapter 3 describes a Minnesota study where findings indicate that a secondary course in parenting and child development had a significantly positive impact in both cognitive and capability attitudes on students when compared to a control group. Chapter 4 presents an Ohio study that found that secondary students who participated in a child development/parent education course showed statistically significant improvement on posttests measuring child development/parent education knowledge. Instruments used in the studies are appended. (YLB)

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Child Development/Parent Education Program Effectiveness

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FOREWORD

Evaluation of program effectiveness has always been a part of the instructional procedure, but evaluation of programs at state or regional levels is less common. There are several reasons, but lack of financial support and incentive are most common.

Following the 1976 mandate for evaluation of consumer and homemaking education as well as vocational education generally, the incentive was there although financial support varied from state to state. As a result, leaders in home economics education sought ways to collect data which would complement the study to be done by the National Institute of Education.

Under the leadership of Hazel Crain, then vice president of the American Vocational Association, an ad hoc research committee was formed to consider both short and long term needs for research in home economics education. One of the early activities of the committee was an impact seminar in 1978. Participants at the seminar planned a series of studies, among which was a study to determine the effectiveness of parent education programs for secondary students.

The studies reported herein are the result of the original planning plus many hours of consultation among the several researchers. Joan Gritzmacher at The Ohio State University, Jerelyn Schultz at Iowa State University, and Terrie Shannon and Janine Watts at the University of Minesota, Duluth are to be congratulated not only for their fine work but for their commitment to the project.

The five-state effectiveness study provides not only data but a process for collaborative research on program effectiveness. If differs

from collaboration on case studies and surveys in that researchers had to reconcile the several curricula, conform to research styles of different institutions, and work through their respective approaches to design and interpretation of the study. The report preserves the identity of the individual studies, yet the combined data strengthen our response to the effectiveness of an important area of consumer and homemaking education.

This report is the last of the series of studies initiated by the committee in 1978. Its publication is a fitting climax to the series.

Ruth P. Hughes
Chair, Ad Hoc Research Committee
1978-1981

PREFACE

This monograph is the culmination of the efforts of many people. The assessment of effectiveness of child development/parenting programs began at the Workshop on Impact Research in Home Economics. This workshop was held before AVA in December 1978 in Dallas, Texas. Dr. Helen Nelson, Cornell University and Dr. Larry Miller, University of Missouri, conducted the meeting. Child development/parenting was one of the emphases chosen because parenting is cited in the 1976 Amendments to Vocational Education Acts and there is a need to have additional data to show the impact of home economics programs on students.

The original committee that conceived of the research design for the evaluation of secondary home economics programs in child development/parenting included:

Deborah Bittinger, Maryland State Department of Education
Joan Gritzmacher, Ohio State University
Dette LaChapelle, Wayne State University
Marie Krueger, Utah State University
Jerelyn Schultz, Iowa State University
Marguerite Scruggs, Oklahoma State University
Terrie Shannon, University of Minnesota, Duluth
Janine Watts, University of Minnesota, Duluth

Leadership for the coordination of this study was assumed by Terrie Shannon. Joan Gritzmacher provided overall coordination for the learner assessment studies.

Committee members who continued to work on this project included:

Terrie Shannon, University of Minnesota, Duluth, Chr.

Joan Gritzmacher, Ohio State University

Jerelyn Schultz, Iowa State University

Janine Watts, University of Minnesota, Duluth

During instrument development, this group met in Minneapolis to refine the knowledge test and met whenever feasible at national meetings.

As part of the coordination effort, Joan Gritzmacher invited researchers in other states to join in using the instruments and collecting data. Terrie Shannon also solicited, at different times, involvement of other researchers. As a result of these invitations, data from New Mexico and Wisconsin were secured.

Data were analyzed separately for Iowa, Ohio and Minnesota by researchers in those states. Data from these states plus New Mexico and Wisconsin were combined and analyzed by Joan Gritzmacher. The terms parent education, parenthood education and parenting, are used as synonyms in this monograph.

The support of Ruth Hughes as Chairperson of the Ad Hoc Research Committee, Home Economics Division, AVA and Hazel Crain, Vice President, Home Economics Division, AVA at the beginning of the learner assessment studies is acknowledged. Both encouraged this effort and Ruth Hughes helped to keep the research moving forward by requests for progress reports and communicating this information to others.

Special thanks are extended to Bill McGinnis, Ohio State University for his word processing skills resulting in the final copy of this monograph for which Joan Gritzmacher assumed coordination responsibility.

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CHAPTER 1

EFFECTIVENESS OF CHILD DEVELOPMENT/PARENTING VOCATIONAL HOME ECONOMICS PROGRAMS IN FIVE STATES

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This assessment of secondary level Child Development/Parenting programs was initiated in 1978 at the AVA presession on Impact Research in Home Economics. The research design and instrumentation were developed cooperatively by Joan Gritzmacher (Ohio State University), Jerelyn Schultz (Iowa State University), Terrie Shannon and Janine Watts (University of Minnesota, Duluth), and graduate students at Ohio State

and Iowa State Universities. The purpose in the study was to compare knowledge of child development/parenting concepts of students who had completed a Child Development/Parenting course with similar students who had not enrolled in such a class. A pretest-posttest design was conceived using a multiple-choice cognitive test administered simultaneously to child development/parenting students and to a comparison group. In addition to data collected in Ohio, Minnesota and Iowa, other researchers were invited to use the instruments in their states and contribute their data to the larger pool. Others joining the research project were Helen Loftis and Gail Fuller (South Carolina), Wendy Way and Dawn Johnson (Wisconsin) and Ednell Schnell (New Mexico). In some states additional data were collected, such as perceived competencies and attitudes regarding parenting and parenting behavior.

In each state, schools were randomly selected from those high schools that offered a quarter, trimester or semester course in Child Development/Parenting during the 1979-80 school year. Within the selected schools, all students who were currently enrolled in the child development/parenting classes were asked to participate in the study. Intact groups of students similar to those in the identified home economics classes also were asked to participate to serve as a comparison group. The research instruments were administered to both groups of students during the first or second week of the course, and again during the final week of the course.

Development of Instrumentation

A 40-item multiple choice cognitive test was the major instrument used. The content was based on child development/parenting concepts

taught in high school Child Development/Parenting classes. This was determined through a review of curriculum guides and conceptual frameworks from various states, concepts from the Census Study that identified concepts taught in vocational consumer and homemaking programs in the United States (Hughes, 1980), textbooks, course outlines and consultation with high school home economics teachers. The content included the decision to parent, development from conception to age six and related parenting skills.

Content validity was established through consultation with teacher educators, child development specialists at universities, secondary home economics teachers and a review of secondary child development texts. One hundred twenty-five test items were developed and pilot tested with approximately 600 students in Ohio, Minnesota and Iowa during Spring, 1979. Item analysis results were used to select 40 items for inclusion in the final version of the instrument. The instrument was then pilot tested again in Fall, 1980. Reliability was established using the Kuder Richardson Formula 20. Reliability coefficients for Iowa, Ohio and Minnesota were .84, .80 and .89 respectively.

Other instruments were designed by researchers in some of the states to collect demographic data including age, sex, prior experience with children, related coursework completed, as well as instruments assessing parenting attitudes and perceived competencies regarding parenting skills.

Sample in Combined Study

This study was completed by compiling data from all states that had collected data under similar circumstances. Secondary students in

randomly selected schools in Ohio, Minnesota, New Mexico and Wisconsin constituted the sample. Students in the experimental group, i.e., students currently enrolled in Child Development/Parenting courses, ranged from 116 in New Mexico to 771 in Minnesota. The comparison group, consisting of students who had not enrolled in such a class, ranged from 43 to 180 students per state. The total sample size for the combined study was 1,867 students. Iowa collected posttest data only; thus total posttest data included 2,995 subjects.

Data Analysis and Findings

Initially pretest and posttest means were determined for each of four states, Minnesota, New Mexico, Ohio and Wisconsin. Then an Analysis of Variance with repeated measures (ANOVRM), i.e. the child development/parenting cognitive test, by state and treatment was run. Figure 1.1 shows the plotted means of the pre and posttest scores of the Child Development/Parenting group in each state connected by solid lines and the pre and posttest means of the comparison group connected by broken lines.

In all cases the parenting group started and ended higher than the comparison group. All posttest scores were higher than pretest scores except for the Wisconsin comparison group. Posttest scores of the Child Development/Parenting group were higher than posttest scores of the comparison group. New Mexico posttest scores for both groups were very close with the Child Development/Parenting group having slightly higher scores. The results of the ANOVA with repeated measures show all

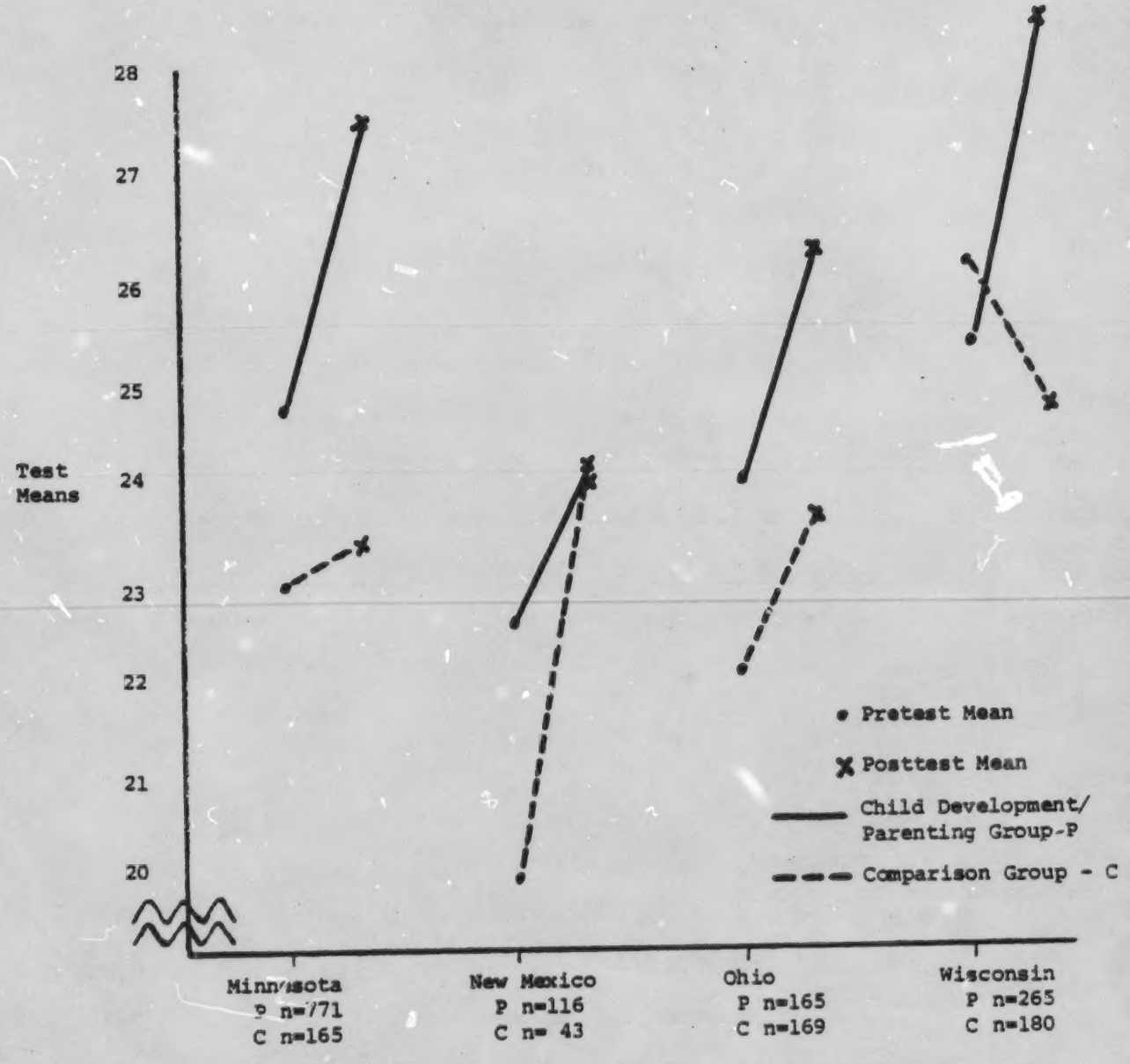

Figure 1.1 Interaction of Pretest and Posttest Means, Treatment and State

variables and their interactions to be statistically significant (Table 1.1). State x treatment was statistically significant at the .05 level and all other variables/interactions significant at a level beyond .001.

The Eta Squares technique was applied to determine the percentage of the variance accounted for by the variables. The variables and interactions each accounted for a very small percentage that added to 17% of the total variance (Table 1.2). Thus, 83% of the variance can be attributed to the size of the sample, 1,867.

The ANOVA yielded interactions of the two female groups and the two male groups in Wisconsin (Figure 1.2). In Wisconsin the posttest scores of both comparison groups decreased from pretest levels. In New Mexico a single male in the comparison group had similar pre and posttest scores.

The ANOVA for repeated measures, the child development/parenting cognitive test, by state, sex and treatment yielded statistically significant results for sex (p=.00001), pretest-posttest (p=.00015), pretest-posttest x treatment (p=.02), pretest-posttest x state x sex (p=.04), pretest-posttest x state x treatment (p=.04), and pretest-posttest x state (p=.05) (Table 1.3).

When the Eta Squares technique was applied, the proportion of variance explained by the variables and their interactions was below 1%. Thus, the variance can be attributed to the number of the subjects in the sample (n=1,866).

Since additional posttest data were available, an ANOVA using posttest scores by state, sex, treatment and grade level was completed.

TABLE 1.1

Analysis of Variance for Repeated Measure,
Child Development/Parenting Cognitive Test,
by State and Treatment

Source of Variance	Sum of Squares	Degrees of Freedom	Mean Squares	F	p
State	3010.93	3	1003.64	19.64	.00
Treatment	2296.66	1	2296.66	44.95	.00
State x Treatment	399.45	3	133.15	2.61	.05
Error	95344.86	1866	51.10		
Pretest-Posttest	1458.24	1	1458.24	110.81	.00
pp x State	194.71	3	64.90	4.93	.00
pp x Treatment	297.68	1	297.68	22.62	.00
pp x State x Treatment	676.89	3	225.63	17.14	.00
Error	24557.05	1866	13.16		

TABLE 1.2

Eta Squares of ANOVA for Repeated Measure,
Child Development/Parenting Cognitive Test,
by State and Treatment

Proportion of Variance Explained

State = 3.16%

Treatment = 2.41%

State x Treatment = .42%

Pretest-Posttest = 5.94%

Pretest-Posttest x State = .79%

Pretest-Posttest x Treatment = 1.21%

Pretest-Posttest x State x Treatment = 2.76%

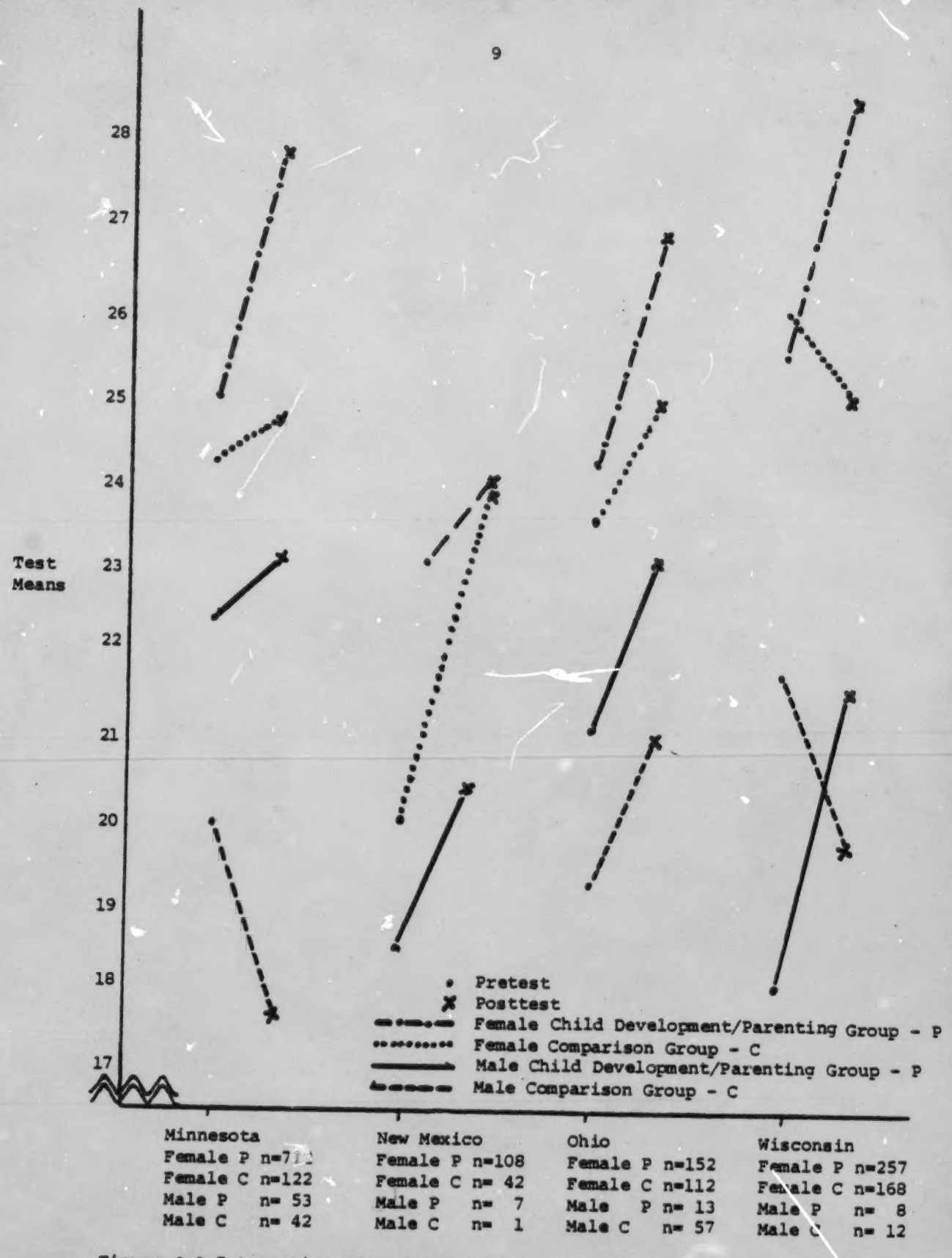

Figure 1.2 Interaction of Pretest and Posttest Means by State, Sex and Treatment

TABLE 1.3

Analysis of Variance for Repeated Measure, Child Development Parenting Cognitive Test by State, Sex and Treatment (n=1,866)

Source of Variance	Sum of Squares	Degrees of Freedom	Mean Squares	F	p
State	49.73	3	16.58	.35	.79
Sex	1299.46	1	1299.46	27.15	.00001
Treatment	66.61	1	66.61	1.39	.24
State x Sex	180.71	3	60.24	1.26	.29
State x Treatment	338.82	3	112.94	2.36	.07
Sex x Treatment	32.47	1	32.47	.68	.41
State x Sex x Treatment	245.54	3	81.85	1.71	.16
Error	88540.74	1850	47.86		
Pretest-Posttest	128.74	1	128.74	10.11	.0015
pp x State	99.84	3	33.28	2.61	.05
pp x Sex	18.51	1	18.51	1.45	.23
pp x Treatment	73.15	1	73.15	5.74	.02
pp x State x Sex	106.22	3	35.41	2.78	.04
pp x State x Treatment	104.85	3	34.95	2.74	.04
pp x Sex x Treatment	7.59	1	7.59	.60	.44
pp x State x Sex x Treatment	15.36	3	5.12	.40	.75
Error	23564.35	1850	12.74		

Statistically significant results were found for sex (p=.001), state x grade (p=.001), state x treatment (p=.003) and treatment (p=.035) (Table 1.4). Application of the Eta Squares technique revealed that all variables and their interactions explained only 2.78% of the variance (Table 1.5). The sample size of 2,295 thus accounts for the variance.

TABLE 1.4

Analysis of Variance of Child Development/Parenting Posttest by State, Sex, Treatment and Grade Level (n=2,295)

Source of Variance	Sum of Squares	Degrees of Freedom	Mean Squares	F	p
State	230.68	4	57.67	1.68	.15
Sex	386.07	1	386.07	11.25	.001
Treatment	153.57	1	153.57	4.47	.035
Grade	176.99	3	59.00	1.72	.16
State x Sex	204.56	4	51.14	1.49	.20
State x Treatment	556.79	4	139.20	4.05	.003
State x Grade	1130.57	12	94.21	2.74	.001
Sex x Treatment	6.14	1	6.14	0.18	.67
Sex x Grade	142.46	3	47.49	1.38	.25
Treatment x Grade	173.25	3	57.75	1.68	.17
Residual	77523.31	2258	34.33		
Total	94332.75	2294	41.12		

TABLE 1.5

Eta Squares of ANOVA of Child Development/Parenting Posttest by State, Sex, Treatment and Grade Level (n=2295)

Proportion of Variance Explained

State = .24%

Sex = .41%

Treatment = .16%

Grade = .19%

State x Sex = .22%

State x Treatment = .00%

State x Grade = 1.20%

Sex x Treatment = .00%

Sex x Grade = .18%

Treatment x Grade = .18%

Implications

Two types of implications are drawn from the multistate data on the effectiveness of Child Development/Parenting vocational home economics programs: implications about the knowledge of students and implications about the kinds of data needed to reflect more completely the effectiveness of Consumer and Homemaking (CHE) programs in the Child Development/Parenting component of CHE programs across several states. These data provide information about the knowledge of child development/parenting concepts of students in five states. The knowledge test utilized for data collection was developed by home economics educators in three states, was pilot tested and was refined prior to its use in the present study. It meets accepted criteria for an evaluation device of this type and can be used by others to collect summative evaluation data on student knowledge of selected child development/parenting concepts.

While the Eta Squares results indicate that most of the variance in scores is due to sample size and not to the variables examined, certain trends are in evidence and will be discussed along with their accompanying implications.

All child development/parenting groups had higher scores on the posttest than on the pretest. These scores imply that some learning did take place in these classes. There also was a gain from pretest to posttest for the comparison groups in three of the four states on whom data were available. However, with the exception of New Mexico, these gains were smaller than the gains experienced by the child development/parenting groups. The New Mexico comparison group data needs to be

interpreted cautiously because of the number of students involved and because it appears that "something" occurred to cause such a large change between the pretest and posttest.

The differences in pretest scores between the Child Development/Parenting groups and the comparison groups in all four states should be noted. Pretest scores for the child development/parenting groups generally are higher than posttest scores for the comparison groups. This observation leads to several questions. Have the child development/parenting students had coursework related to the concepts addressed on the test prior to their enrollment in the semester course? If so, does the test reflect the content covered only in the semester length child development/parenting courses or does it reflect a combination of the content covered in these and other related course(s)? Does the amount of experience and the type of experience with children differ between the child development/parenting groups and the comparison groups? What other variables might account for these differences in knowledge?

Differences in knowledge of child development/parenting concepts between males and females revealed that females consistently had higher scores. Because the number of males is so small, the interpretations presented are tentative. Different societal expectations and socializing experiences with respect to children may account for some of the observed differences. However, changes in family structure and composition including the increased number of dual career families suggest that these sex differences probably will change over time. These same

societal changes further indicate the need to reach males through the child development/parenting component of CHE programs in order to better prepare them for the responsibilities of parenthood.

The data imply that the content covered in the child development/parenting component of the CHE programs varies by state. This may be a reflection of leadership provided at the state level and/or the existence of a state recommended curriculum. Additional information about what concepts actually are taught and the strategies used to teach these concepts would provide valuable information about the relative effectiveness of Child Development/Parenting programs by state. This information also would provide evidence of the content validity of the knowledge test used to collect data.

As the implications based on the data reported were given, questions were raised about the need for additional information to determine the effectiveness of the child development/parenting component of CHE programs. These data and the possible implications about program effectiveness they could provide are presented below.

The data available across the five states address the evaluation of cognitive objectives only. No multistate data are available that address the effectiveness of Child Development/Parenting courses in meeting affective objectives or in developing parenting skills. Both are important parts of an effective course and/or program.

Effecting changes in student attitudes and values toward parenting through teaching in the affective domain may be even more important than

teaching for lower level cognitive objectives. Students may not remember specific cognitive information, but changes in attitudes and values may be more lasting and therefore more important in influencing students' ability to perform parental responsibilities in the future.

Students' actual ability to care for and work with children also is important. As the size of families decreases, students will have less opportunity to develop these skills in the home. Opportunities to develop these skills are provided through child development/parenting courses and need to be evaluated when investigating the effectiveness of these courses.

In conclusion, the data reported provide a good initial attempt at determining the effectiveness of the Child Development/Parenting component of CHE programs across states. These findings suggest that students in Child Development/Parenting semester length courses start and end these courses with greater knowledge than comparison groups of students. The present study also raises questions about why some of the results occurred and provides clues for conducting additional research to assess further the effectiveness of these courses. Needed data include information about other related coursework, prior experience with children, attitudes toward parenting, skills in caring for and working with children, and the actual objectives and strategies used in these courses. Some of the needed data have been collected within the participating states and will be presented in succeeding chapters of this monograph.

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CHAPTER 2

PARENTHOOD EDUCATION EFFECTIVENESS OF IOWA SECONDARY HOME ECONOMICS PROGRAMS

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Program evaluation efforts have greatly increased in the past few years. Educators have become increasingly aware of ways evaluation results can be used to improve programs and to provide evidence of program accountability. Program evaluation efforts have been spurred by legislation and by research projects that have contained extensive provisions for evaluation.

A comprehensive evaluation of consumer and homemaking (CHE) programs was mandated by the United States Congress in 1976 with the passage of Public Law 94-482. In 1977 a group of concerned home economics teacher educators formed the American Vocational Association Ad Hoc Research Committee. The committee was established to complement the

National Institute of Education evaluation studies and provide more precise data concerning CHE programs.

Section 105F of Public Law 94-482 called for parenthood education to meet societal needs. Determining the extent to which students in consumer and homemaking classes have learned parenting concepts would be one part of the comprehensive evaluation of CHE programs. One of the first activities of the American Vocational Association Ad Hoc Research Committee was to encourage evaluation studies in the area of parenthood education. The committee determined 20 conceptual areas pertinent to a secondary parenthood education curriculum.

Representatives from Iowa State University, the University of Minnesota, and The Ohio State University agreed to participate in the American Vocational Association Ad Hoc Research Committee's effort through the development of instruments to assess the parenthood education components of CHE programs. Instruments evaluating students' knowledge of parenthood education concepts were designed and refined in 1979.

The purpose of this study was to assess the level of parenthood knowledge and attitudes concerning parenthood of two groups of Iowa high school students. One group was students who had completed a semester length child development course. The comparison group was students who had not taken a child development course. Specific objectives of the study were:

1. To assess the level of knowledge of parenting concepts held by secondary students.
2. To assess the attitudes concerning parenthood held by secondary students
3. To compare parenthood knowledge and attitudes of child development students and nonchild development students.

4. To compare parenthood knowledge and attitudes of students using selected demographic variables.

5. To ascertain the empnasis given to the parenting topics by teachers of the sample groups.

Procedure

A posttest only control group design was used in the study. In this design the treatment is participation in a child development semester course.

Sample

Students enrolled in child development courses and a comparison group of students enrolled in a home economics semester course other than child development made up the sample. The comparison class in each school was selected by the home economics teacher in that school on the basis of the similarity of these students to the child development students on such factors as age, sex, grade level, and ability. Students in 10 selected schools across the state of Iowa participated in the study.

Instrumentation

Instruments used to collect data were the Child Development Knowledge Test (CDKT) and the Parenting Attitudes Inventory (PAI). A table of specifications was developed for the knowledge and attitudinal instruments based on the 20 topics identified as parenting concepts by the American Vocational Association Ad Hoc Research Committee. This table served as a guide for the relative emphasis given to the 20 parenting concepts in both the CDKT and the PAI.

Representatives from Iowa State University, The Ohio State University, and the University of Minnesota at Duluth worked cooperatively to develop the CDKT. This multiple choice test was designed to measure students' knowledge of selected child development/parenthood education concepts. The final 40 items on the test were selected following field tests in Iowa, Ohio, and Minnesota. Items that were at the appropriate difficulty level, had functioning distractors, discriminated effectively, and provided an adequate sample of the topics under consideration were retained.

To measure students' attitudes toward parenthood and children, a 40-item attitudinal inventory (PAI) was developed. First, a pool of 53 items reflecting the 20 topics or concepts identified by the American Vocational Association Ad Hoc Research Committee was formulated. Items were designed to parallel the items in the CDKT for each concept. A five-point scale was developed for the response pattern with descriptive terms for degree of capability chosen for each point on the scale. Descriptors were: not at all, a little, some, quite a lot, and a great deal.

The PAI was reviewed by parenthood education and evaluation experts for content validity and clarity. It was then pretested with 50 Iowa high school students enrolled in a child development semester course. Students were asked to comment on any items they found unclear or difficult. Mean scores and standard deviations were calculated for each item. Items that did not discriminate between students and items considered ambiguous, too long, or too similar were dropped. The final form of the PAI contained 40 items that sampled the same topics as the CDKT.

Data Collection

The CDKT and the PAI were administered by the home economics teacher in each participating school. Both instruments were given to child development classes and to another home economics class in each school. The population consisted of students enrolled in vocational consumer and homemaking courses during the 1979-80 academic year. Ten schools were selected from all schools offering a semester course in child development during the fall semester.

Each teacher was sent a packet containing the test, IBM answer sheets, an instruction sheet, and a stamped self-addressed envelope for returning the answer sheets. Demographic information requested from each student included grade, sex, birthdate, home economics courses taken, amount of experience with children, type of experience with children, and an estimate of if and when they would become parents.

Data Analysis

Responses to the CDKT and the PAI were processsed by the Test and Evaluation Service at Iowa State University. For the CDKT the mean, standard deviation, and standard error of measurement were computed for both child development students and the comparison group. The Kuder-Richardson 20 formula was used to estimate reliability.

Item analysis procedures were utilized to assess the quality of the items on the CDKT. Item discrimination was calculated by the point-biserial correlation coefficient. The recommended standard for a good item is .20-.40. If the correlation is greater than .40, the standard deviation must be greater than .20. The second index calculated as part

of the item analysis procedure was the difficulty index, indicating the percentage of correct responses. Items with a medium difficulty range of 30-70% were acceptable. The third indication of item quality examined was the effectiveness of the distractors. A distractor should be chosen by at least one in every 50 students to be acceptable.

Descriptive statistics including percentages, means, and standard deviations were calculated for each item on the PAI. Groups or clusters of student attitudes toward parenting were identified through factor analysis of responses to the 40-item attitudinal instrument. Initial factors were extracted using Principal Components Factor Analysis procedures. The resulting factors were rotated using Varimax procedures. Factor reliabilities were calculated using the Spearman-Brown formula, and factor mean scores and standard deviations were computed.

Differences in knowledge scores and attitudinal factor scores between groups of students were determined by analysis of variance techniques. The effects of sex, grade level, and school on parenting knowledge and attitudes were investigated by one way analysis of variance. Multivariate analysis of variance techniques were used to determine the effects of enrollment in child development, family living, and comprehensive home economics on the CDKT and the PAI factor scores. No attempt was made to analyze the effects of amount and type of experience with children on parenting knowledge and attitudes because of the similarity between the child development group and the comparison group on these variables.

Findings and Discussion

Students at 10 Iowa high schools reponded to the CDKT and PAI. A total of 455 students completed the instrument, 268 had completed a semester length course in child development and 187 had not taken a child development course. The home economics teachers at the schools indicated which of the 40 knowledge items they felt their child development students should have been able to answer.

Students participating in this study reported their sex and grade level. Student responses were voluntary and in some cases no response was given. Of the respondents, 12.5% were male and 85.5% were female. A large majority of the respondents were enrolled in 11th and 12th grades, with only 7.3% in 9th grade and 10.3% in 10th grade.

Students indicated home economics courses other than child development they had taken. A large majority of the respondents (81.3%) had taken a comprehensive home economics course and would have had exposure to child development concepts.

For the comparison group, teachers were asked to choose a group of students as similar as possible to their child development class. Responses to questions concerning their plans for parenthood and experience with children indicate that the two groups were similar in these areas. Eighty-one percent of the child development students and 85% of the comparison group plan to postpone becoming parents for 3 years or more. Four percent of the child development students and 2% of the comparison group were parents at the time they participated in the study. Both groups indicated that they had more experience with children than most teenagers. Of the child development students, 58%

reported that they had more or much more experience. Fifty-one percent of the comparison group responded in the same categories.

Babysitting was the most common type of experience reported by both groups, with 58% of the child development students and 62% of the comparison group responding with that answer. Taking care of younger brothers and sisters at home was the next most common response for both groups.

Child Development Knowledge Test (CDKT)

The analysis of the results of the 40-item knowledge test, CDKT, showed that child development students had a mean score of 24.54 and a standard deviation of 6.91. The comparison group had a mean score of 23.43 and a standard deviation of 5.72. Scores of child development students ranged from 6 to 39. The range of scores for the comparison group was narrower, 7 to 33.

The quality of an achievement test should be based on data from students who have had the course content evaluated by the test. Therefore, the data discussed here for the CDKT are for child development students only.

The estimated reliability of the CDKT using the Kuder-Richardson 20 was .84 and the standard error of measurement was 2.8. Each of the 40 items was analyzed for item difficulty, item discrimination, and distractor analysis. Item difficulty represents the percentage of students answering each item correctly. According to Menne (1970), most items should be of medium difficulty and fall between 30% and 70% correct. Item difficulty for the CDKT averaged 61%, with a range of 33% to 86%. Seven items were above the 70% difficulty level.

The most important statistic for indicating item quality is the discrimination index. This refers to the degree to which an item is answered correctly by more students in the higher achievement group than in the lower group. Only four items had discrimination indices below the desired level.

Each distractor should be chosen by at least one respondent in a group of 50 for an optimum functioning item. On the CDKT each distractor should have been chosen by five students since the number of child development students completing the test was 268; only two items failed to meet this criterion.

Parenting Attitudes Inventory (PAI)

Mean scores and standard deviations were calculated for each of the 40 items in the PAI. Mean scores ranged from 2.57 to 4.32 for child development students and from 2.47 to 4.07 for the comparison group, with higher mean scores indicating students felt more capable. Child development students had higher mean scores for every item.

Both groups felt least capable on the item that covered financial considerations of parenting. Means of 4.00 or above were reported by both groups for items concerned with reproduction and social-emotional development of children.

Five factors resulted from the factor analysis of the PAI. Items were placed into a factor based on size of factor loading and rationality of fit. Factors were labeled according to the dimensions they appeared to describe and varied in size from four to 19 items. Reliabilities of the five factors were calculated using the

Spearman-Brown procedure and were considered to have an acceptable level of reliability if they were in the .65 to .85 range (Borg and Gall, 1971). The five factors, their reliabilities, and the number of items included are:

I - Parenting Practices. Items in this factor deal with parenting practices and child care. Topics included are health and safety, physical development, and development of creative expression. Special concerns such as child abuse and support services also are part of this factor. Development of the skills reflected in this factor would take more interaction with children than realistically would be provided by babysitting experiences. (r=.99, 19 items)

II - Social and Intellectual Development. This factor includes items concerning the social and intellectual development of children. Choosing appropriate play activities and toys are included. Items deal with areas that could be experienced during short term interactions with children such as babysitting. (r=.92, 5 items)

III - Decision to Parent. Areas of concern when deciding if and when to become a parent are covered in this factor. Included are financial, environmental, and emotional considerations of parenthood. (r=.87, 5 items)

IV - Reproduction. The items selected for inclusion in this factor concern the reproductive system and conception. Understanding human reproduction and how pregnancy begins, along with preventing unwanted pregnancies, are included. (r=.83, 4 items)

V - Pregnancy and Birth. Pregnancy and the birth process are covered in the fifth factor. Topics included are maternal health and

nutrition, prenatal care, prevention of birth defects, childbirth, and care of the newborn. (r=.97, 7 items)

Influence of Selected Variables on CDKT and PAI Scores

Differences on CDKT and PAI scores were analyzed for the variables of sex, grade level, and school using one way analysis of variance techniques. Table 2.1 shows the F-ratios for each variable as the source of variance or main effect. Group means are presented in Table 2.2.

Table 2.1

F-ratios for selected demographic variables related to CDKT and PAI scores

	F-ratios					
Variables	CDKT	PAI-I	PAI-II	PAI-III	PAI-IV	PAI-V
Sex	19.72**	4.46*	13.10**	0.01	0.79	13.34**
Grade Level	8.88**	8.30**	11.30**	2.35	7.83**	7.38**
School	4.59**	2.81**	2.69**	2.98**	4.63**	2.22*

*significant at $p<0.05$.
**significant at $p<0.01$.

Sex. Significant differences in CDKT scores and in three PAI factor scores were found between males and females. Females had higher scores on the CDKT and PAI factors concerned with parenting practices, social and intellectual development, and pregnancy and birth. However, these differences need to be viewed with some caution because of the unequal cell sizes.

Table 2.2

Mean CDKT and PAI factor scores by sex, grade level, and school

Variables	Mean scores					
	CDKT	PAI-I	PAI-II	PAI-III	PAI-IV	PAI-V
Sex						
Male (57)[a]	20.60	57.74	13.11	14.54	14.95	21.98
Female (389)	24.60	62.80	15.12	14.49	15.40	25.28
Grade Level						
9 (33)	21.00	49.39	11.45	12.91	13.00	21.58
10 (47)	22.26	58.74	14.02	13.70	14.17	22.15
11 (188)	23.35	63.69	15.00	14.58	15.62	26.30
12 (178)	25.76	63.79	15.55	14.93	15.76	25.78
School						
1 (39)	25.15	60.64	14.95	15.69	15.92	25.08
2 (15)	24.20	58.73	14.93	14.13	15.40	25.87
3 (26)	23.35	70.88	16.[illegible]	16.73	17.47	28.31
4 (45)	27.64	64.58	16.22	15.73	15.56	25.64
5 (31)	22.94	56.52	13.03	14.51	14.58	24.71
6 (43)	25.19	59.53	14.77	14.26	13.74	23.63
7 (57)	23.60	67.35	15.42	14.67	16.56	25.58
8 (37)	26.03	65.46	15.57	15.49	16.51	25.54
9 (129)	21.81	58.88	13.99	13.21	14.37	23.23
10 (32)	25.66	62.66	14.78	13.31	15.81	25.78

[a]( ) indicates number in each cell.

Grade level. Grade level was a significant main effect for all but the PAI factor on the decision to parent. Students at upper grade levels had greater parenting knowledge as reflected by the CDKT scores and felt more competent as reflected by their scores on PAI factors I, II, IV, and V. Greater knowledge as grade level increased may account for some of the differences in attitudes assessed by the PAI.

School. The F-ratios for school as the main effect were significant for the CDKT and for all five PAI factors. Some of the differences in parenting knowledge might be accounted for by the varying content covered as part of the child development classes at each of the 10 schools. For example, teachers in schools 3 and 10 reported that they taught fewer of the topics related to the decision to parent and parenting practices. Difference in attitudes among students in the participating schools may be due to community mores. In addition, cognitive and affective objectives also may vary from school to school.

Home economics enrollment. Multivariate analyses of variance were used to test the effects of enrollment in child development, family living, and comprehensive home economics courses on CDKT and PAI scores. Overall F-ratios and F-ratios for each home economics course as a main effect are presented in Table 3. No significant interactions were found among the variables. Only main effects on which the overall F-ratio is significant will be discussed.

Table 2.3

F-ratios for home economics enrollment related to CDKT and PAI scores

	F-ratios			
Scores	Overall	Child Development	Comprehensive Home Economics	Family Living
CDKT	7.60**	.26	17.73**	1.86
PAI-I	3.32*	5.34*	1.18	4.70*
PAI-II	3.59*	.76	5.92*	2.74
PAI-III	4.70**	5.22*	.10	12.46**
PAI-IV	2.15	3.31	.06	5.79*
PAI-V	6.72**	10.80**	2.74	8.67**

*significant at $p<0.05$.
**significant at $p<0.01$.

Inspection of the F-ratios in Table 2.3 reveals enrollment in a child development course to be a significant main effect for PAI factors on parenting practices, the decision to parent, and pregnancy and birth. In all three cases, child development students indicated they felt more capable than the comparison group of students. These concepts typically are taught as part of child development courses (Moore, 1979).

No significant difference in CDKT scores was found between child development students and the comparison group. This may be due to the similarities of both groups in the amount and type of experience they have had with children or in the fact that a large proportion of both groups had taken a comprehensive home economics course covering some of the concepts.

Enrollment in a comprehensive home economics course results in significant difference in CDKT scores and the PAI factor scores on social and intellectual development. In both instances, students had higher scores if they had taken a comprehensive course. Moore found in her 1979 study that parenting concepts included in a comprehensive course emphasized the principles of child development. Many items on the CDKT could fall into this general area. These findings suggest that some items on the CDKT are minimal competencies often covered in a comprehensive course.

Differences for PAI factor II between students who had or had not completed a comprehensive course reflect the nature of the items included in this factor. Items are related to activities often associated with babysitting, and many comprehensive home economics courses include units on babysitting.

Finally the effect of enrollment in a family living course was examined. While no significant difference in knowledge (CDKT) was found between family living and nonfamily living students, significant differences were found for PAI factors (Table 2.3). Students enrolled in or who had been enrolled in family living classes felt more capable in parenting practices, the decision to parent, and pregnancy and birth.

The differences for factor I, parenting practices, may be due to the special concerns such as child abuse and child care services addressed in these courses (Moore, 1979). Concepts concerned with family planning and reproduction also are commmonly taught in family living classes leading to feelings of greater competence in the area of deciding if and when to parent. Therefore, the differences in attitudes toward parenting as a result of a family living class are plausible.

Implications

Several implications can be drawn from the data presented. The first is concerned with the results obtained from the CDKT. Based on inspection of the knowledge test from the standpoint of item analysis data, it appears to be an acceptable device. However, the significant differences in CDKT scores between students who have taken a comprehensive home economics course and those who have not suggest that the test may be assessing lower level objectives rather than those addressed in semester length child development courses. Another explanation may be the similarity in content between a child development unit in a comprehensive course and a semester length child development course. Nonetheless, the present findings do provide evidence that students who have taken a CHE course addressing child development/parenthood education concepts score better than those who have not.

A second major implication is related to the observed differences in attitudes toward parenting as reflected by the PAI. Enrollment in child development results in greater feelings of competence in three areas: parenting practices, the decision to parent, and pregnancy and birth. These findings indicate that affective objectives are an important part of semester length child development courses. Considering the relationship between knowledge, attitudes, and practices, these findings suggest that students who have taken child development will aproach parenthood with more realistic expectations and more positive attitudes. The importance of positive attitudes in effective performance of the parenting role cannot be overemphasized.

The last implication stems from the significant differences in PAI factor scores as a result of enrollment in a family living class. Many of the same affective objectives appear to be covered in these courses as are covered in child development courses. Recognizing that changes in values occur gradually and need reinforcement over time, it is realistic and important that both courses address these objective. In addition, these data suggest that even if a student elects to take only one of the courses, some change in attitudes toward parenting is likely to occur.

Recommendations for Research

As a result of this study, the following recommendations for further research are proposed:

1. Investigate the actual treatments, i.e., semester length child development courses, in more detail. Determine cognitive and affective objectives covered as well as teaching methods and strategies employed.

2. Compare the content and objectives covered in semester length child development courses with those covered in a child development unit in a comprehensive home economics course. Analyze the CDKT based upon these findings.

3. Develop a longer and higher cognitive level knowledge test to address specific upper level objectives covered in semester length child development courses.

4. Use the CDKT and PAI with other populations such as college students, expectant parents, and young parents.

5. Conduct follow-up studies of students who have taken home economics courses addressing parenthood education concepts to evaluate long range effects.

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CHAPTER 3

IMPACT RESEARCH ON SECONDARY VOCATIONAL CONSUMER-HOMEMAKING PROGRAMS IN MINNESOTA FOCUSING ON STUDENTS IN PARENTING/CHILD DEVELOPMENT CLASSES

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The major purpose of the study in Minnesota was to ascertain the impact of instruction in parenting/child development classes by assessing the knowledge level of secondary level students. Pretest and posttest data measuring student knowledge of selected concepts were obtained simultaneously from students enrolled in parenting/child development courses and from students not enrolled in such a class. A review of the literature revealed no instrument suitable for the purpose of this study, so plans were made to develop and field test an instrument

to measure knowledge of parenting/child development concepts. In addition, data collection included demographic factors and students' perceived capabilities regarding various parenting situations. Descriptive information concerning the teachers' educational preparation and teaching methods and materials used in parenting/child development courses was also obtained.

Research Design

The research design for this study was developed cooperatively by four researchers at three universities as an outgrowth of the 1978 American Vocational Association presession workshop on Impact Research in Home Economics. The two investigators for this project were members of that research team. The research design utilized was Campbell and Stanley's (1963) Non-equivalent Control Group Design Number 10. This is a pretest-posttest control group design, which is appropriate for intact groups not having pre-experimental sampling equivalence. The treatment in this study consisted of instruction in a quarter, trimester or semester length parenting/child development course.

Instrumentation

The major instrument used to obtain data in this study was the Child Development Knowledge Test, a 40-item multiple choice test developed cooperatively by the researchers in Iowa, Minnesota and Ohio. A list of concepts included in high school parenting/child development classes was developed, based on a review of curriculum guides and conceptual frameworks from various states, textbooks and course outlines, and in consultation with high school and university parenting/child development instructors. Test items were then written to measure knowledge of each concept, and further validity checks were made with teachers and subject matter experts.

The three sections of the test, each measuring different concepts and developed in a different state (Iowa-42 items, Minnesota-40 items, Ohio-43 items), were pilot tested on students in Iowa, Minnesota, and Ohio during the Spring of 1979. In Minnesota, the pilot test group consisted of 330 students who had completed at least one child development/parenting course and 210 students who had not enrolled in such a course. These students represented 21 different secondary schools. In addition to completing the knowledge tests, students were also asked to indicate the number of parenting/child development courses taken. The teachers were asked to provide the letter grade each student had earned in his/her parenting/child development class.

Reliability

In order to determine the instrument's stability over time for the three sections of the test, students in the parenting/child development classes in Minnesota were asked to complete the same test approximately two weeks after the first test was administered. The Pearson product-moment correlation coefficients between the first and second test scores are shown in Table 3.1.

TABLE 3.1
CORRELATION COEFFICIENTS FOR TEST-RETEST RELIABILITY

Test Sections	Number of Students	r	First Administration		Second Administration	
			Mean	S.D.	Mean	S.D.
IOWA	97	.71	24.50	5.57	26.44	5.19
MINNESOTA	119	.69	33.69	3.93	34.01	3.60
OHIO	98	.74	23.39	5.33	23.71	5.62

In addition to this estimate of the test's stability, the internal consistency of each section of the test as a whole was assessed through the Kuder Richardson Formula 21 technique. The internal consistency coefficients for the 3 sections were .66, .69 and .63 for the Iowa, Minnesota and Ohio sections respectively.

Validity

The content validity of the instrument was assured by selecting item content from currently used parenting/child development textbooks and curriculum guides, and through verifying the selected content with both secondary parenting/child development teachers and university subject matter specialsts. In addition, teachers in the study were asked to indicate whether or not they actually included the content in each test item in their parenting/child development courses.

Two forms of concurrent validity were also assessed in Minnesota. A Pearson product-moment correlation was determined for students' scores on the knowledge test and the grades received for the parenting/child development course. A second correlation was made between the students' scores on the knowledge test and the number of parenting/child development courses taken. The resulting correlation coefficients are given in Table 3.2.

TABLE 3.2
CORRELATION COEFFICIENTS FOR CONCURRENT VALIDITY

Test Section	N	Correlation between Test Score and Course Grade	Probability
Iowa	23	.23	.110
Minnesota	105	.55	.001
Ohio	30	.58	.001

TABLE 3.2 continued

Correlation between Test Score and Number of Parenting/Child Development Courses Taken			
Iowa	128	.07	.230
Minnesota	157	.12	.072
Ohio	125	.38	.001

Item Analysis

A complete item analysis was conducted for each of three sections of the test. This included a frequency distribution of all item responses expressed as relative percentages; an item difficulty index; an item discrimination index; and an internal consistency measure expressed as the point-biserial correlation between the correctness of each item responses and the total test score obtained.

The item analysis results were used to select the 40 items for inclusion in the final version of the instrument. The final test was then field tested in the Fall of 1979 in the same three states with internal consistency reliabilities in the .80's, using the Kuder Richardson Formula 21.

Additional Instruments

Although the main focus of the study was to assess students' knowledge of parenting/child development concepts, interest in students'

perceptions of their own capabilities in handling parenting situations led to development of a second instrument.

The Perceived Capability Rating Instrument consisted of 25 items, each concerning a separate aspect of parenting behavior. Students were asked to indicate how capable they feel towards accomplishing each task, using a 5 point scale ranging from "I do not feel capable at all to handle this situation" to "I feel very capable of easily handling this situation."

A Student Information Section was also added to collect demographic data on age and sex of student, number and source of related coursework, and types of experiences in caring for children. In addition, students were asked about their attitudes about becoming a parent, and their current status regarding parenthood.

A Teacher Questionnaire was developed to collect information regarding the organization, teaching materials and teaching methods employed in the parenting/child development classes. Teachers were also asked to list the courses they had taken in parenting/child development and the years when this coursework was completed. These additional instruments are in Appendix B.

Sample

The sample consisted of a random selection of approximately one-third of the high schools in Minnesota offering a quarter, trimester, or semester course in parenting/child development taught in the home economics department during the second semester of the 1979-80 school year. Within the selected schools, all students currently enrolled in the

parenting/child development class(es) were asked to participate in the study. An intact group of students similar to those in the identified sample, and who had not completed such a course, was asked to participate to serve as a control group. In Minnesota, the sample consisted of 63 schools, of which 47 had semester length courses and 16 had quarter or trimester courses. Twenty-five of the schools in the sample agreed to administer the research instruments to a control group. Schools included in the sample represented all geographic areas of the state and ranged in size from 45-1800 students in grades 10-12.

Procedure

Research instruments were mailed to the schools in January, 1980, to be administered during the first week of the parenting/child development classes and simultaneously to the control groups. A detailed letter of instructions for administering the instruments was included. Procedures for informed consent of participants were followed, as required by the University of Minnesota's Committee on the Use of Human Subjects in Research. Permission to administer the tests in the sample schools was obtained from school administrators. Teachers were instructed to return the testing materials to the reseachers by mail for scoring.

Posttest data collection procedures were similar to the pretest, except that in addition to completing the knowledge test, students were also asked to complete the Perceived Capability Rating Instrument and the Student Information questions. Instruments were administered as near the end of the course as feasible. Teachers were asked to indicate

which items on the posttest included content not taught in their course as well as items yet to be taught after administration of the test. After the investigators' receipt of the posttest materials, the questionnaire was mailed to teachers requesting information on the nature of the course and on their own college coursework in parenting/child development content.

Results

Sample. Data analysis was performed on test results from 43 schools in the parenting/child development (P/CD) group and 17 schools in the control group. The remainder of the schools in the original sample did not administer both pre- and posttests, omitted students' names on answer sheets or returned the answer sheets too late to be included in analysis. The sample yielded usable data from 773 students in the P/CD group, and 165 students in the control group.

While the majority of students in the P/CD group (85.2%) and control group (73.9%) were in the eleventh and twelfth grades, there was significant variation in grade level $\chi^2=17.38$ with 3df, $p<.01$) (See Table 3.3).

TABLE 3.3
GRADE LEVEL

	P/CD GROUP		CONTROL GROUP	
	N	Percent	N	Percent
Ninth Grade	22	2.9	10	6.1
Tenth Grade	92	11.9	33	20.0
Eleventh Grade	314	40.8	72	43.6
Twelfth Grade	342	44.4	50	30.3
TOTAL	770*	100.0	165	100.0

*No data on grade level for three students

There was a higher percentage of females in the P/CD group (92.6%) than in the control group (73.9%). In comparing the number of courses in child development completed prior to administering the instrument, the two groups again showed a significant difference. The P/CD group had 72.3% who had no course and 21.5% who had one course. The control group had 83.5% who had no course and 12.8% who had one course (χ^2=8.94 with 3df, p<.05).

In a self report of their letter grade average in high school classes, the P/CD group was similar to the control group. A cross tabulation of the two groups by age ranges of their brothers and sisters showed that the groups were nearly identical on this factor.

The type of child care experience was similar for both groups, but the amount of babysitting experience of the P/CD group was significantly greater than the control group (χ^2=41.62 with 3df, p<.01). There was a significant difference between the groups on child care courses taken in the community. The control group had completed more courses than the P/CD group (χ^2=11.52 with 4df, p<.05).

A significant difference appeared betweeen the groups on the percentage of students who were already parents (χ^2=26.5 with 4df, p<.01). In the P/CD group, slightly over 4% of the students were already parents while slightly over 10% of the control group were parents. The distribution of parents and whether they were living with their child are given in Table 3.4.

TABLE 3.4
PRESENT PARENTING SITUATION

	P/CD GROUP	CONTROL GROUP
Not a parent	95.6%	88.3%
Parent, living with child	3.4%	4.3%
Parent, not living with child	.8%	6.1%

Significant differences between the two groups were shown in their feelings about the age at which they would like to become a parent, χ^2=13.85 with 4df, p<.01). Two-thirds of the P/CD group (67.9%) and over half of the control group (53.7%) would like to wait until they are over 21 years of age. Differences are more apparent among those who want to become a parent between 18 and 21 years of age with 14.6% of the P/CD group and 20.0% of the control group designating that age. About 3% of the P/CD group indicated they did not plan to become a parent while nearly 7% of the control group indicated that preference.

Cognitive Test. In an analysis of pre- and post cognitive test scores, the P/CD group scored at a significantly higher level than the control group on both administrations of the test (p<.01). The mean score of the P/CD group increased by nearly three points (2.83 points on a 40 item/point test) from the pre- to the posttest, while the mean score of the control group increased by only 0.18 points. A higher percentage of P/CD students responded with correct answers to 39 of the 40 items. The one item answered correctly more often by the control group dealt with birth defects caused by use of alcohol (No. 37); the control group exceeded the P/CD group by only 0.1% on that item.

Six items on the cognitive test were answered incorrectly by more than 50% of the P/CD group. Teachers reported that the content of two items (Nos. 3 and 5) was not covered in their class. Income necessary to raise a child was omitted by 25 teachers, and characteristics of a good day care program was omitted by 16 teachers and yet to be taught by seven teachers. The remaining four items answered incorrectly by more then 50% of the P/CD group included the concepts of Rh factor (No. 9), nutrition during pregnancy (No. 12), symptoms for concern during pregnancy (No. 13), and dealing with jealousy (No. 20).

Attitude Checklist. Considering the section of the posttest that asked students to indicate their feelings of capability to handle parenting sitations, the P/CD group rated their capability at a significantly higher level than the control group on all 25 items ($p<.01$). Results are shown in Table 3.5.

Teacher Questionnaire. Completed questionnaires were received from 35 home economics teachers. The most common name for the course they taught was Child Development. Class length was 45-50 minutes for almost two thirds (64.7%) of the respondents. Semester courses were held in two-thirds (67.7%) of the schools, trimester courses in 20.6% and quarter coures in 11.8%. Courses required experience with children in almost 90% of the schools. Play schools were the most common means of providing experience with the number of weeks for play schools varying widely. The number of hours of required experience with children was 10-12 hours for 29.4% and 4-9 hours for 26.5% of the schools.

A variety of textbooks was used by three-fourths of respondents. Approximately 80% of respondents also utilized pamphlets, films, filmstrips and a wide variety of other teaching materials. Class sizes of 16-20 were reported by 40.8% of the sample and sizes of up to 15 were reported by 24.5% of the respondents. School sizes varied, with the number of students in grades 10-12 ranging from 45 to 1800.

The majority of teachers reported recent coursework in the areas of parenting and/or child development. Courses were completed within the last five years by 64.7% of respondents. Coursework prior to 1975 was reported by the remaining 35.5%.

Implications

The findings of this study indicate that a course in parenting/child development had a significant positive impact on students when

TABLE 3.5
Means and Standard Deviations of Attitudinal Items

ITEM NUMBER	P/CD STUDENTS		CONTROL GROUP	
	Mean	S.D.	Mean	S.D.
1	3.80	1.04	3.26	1.30
2	3.43	1.04	2.83	1.22
3	3.33	1.00	2.64	1.16
4	3.73	.98	3.06	1.09
5	3.41	1.06	2.82	1.13
6	3.77	1.00	3.28	1.10
7	4.02	.95	3.47	1.16
8	4.52	.80	4.13	1.14
9	4.08	.86	3.72	1.04
10	3.88	.90	3.27	1.15
11	3.86	.89	3.46	1.04
12	3.86	.94	3.31	1.10
13	4.02	.84	3.57	1.01
14	3.78	.91	3.50	.97
15	3.40	.96	3.04	1.03
16	4.35	.89	3.97	1.13
17	3.81	.84	3.54	.99
18	3.87	.89	3.58	1.04
19	3.61	.98	3.26	1.21
20	3.75	.87	3.42	1.15
21	3.62	.91	3.32	1.01
22	3.48	.89	3.19	.97
23	3.90	.99	3.58	1.09
24	3.62	1.02	3.31	1.11
25	3.75	1.00	3.36	1.12

compared to a control group. The positive impact appeared in both cognitive abilities and capability attitudes. The findings of this study lend support to the following implications:

1. Parenting/child development courses at the secondary level should receive continued and increased support from national, state and local educational agencies. The learning experiences in parenting/child development courses need to be made available to more students.
2. The positive outcomes of parenting/child development courses need to receive more publicity on the local and statewide level. Awareness of parenting programs being conducted may generate larger enrollment.
3. More males need to be attracted to enrolling in parenting courses. With the shifting roles in society, more men are assuming a greater responsibility in child rearing. It is essential that they, too, have training in parenting.
4. Students who are already parents should be advised to enroll in parenting courses. The concepts and skills to be learned would have immediate application.
5. Teachers should utilize a pretest to determine content areas needing special emphasis. Students may already have adequate knowledge in certain areas of child development.
6. Factors and conditions during the prenatal period need to be addressed in a manner which enhances the students' knowledge. The prenatal period is receiving increased attention among researchers and educators as a critial time with long-lasting implications for development.

7. Teachers need support and encouragement to keep up-to-date in the content area. Those having recent course work are to be commended. The teachers who have not been involved in courses within the past five years may need to evaluate their professional development. While there are various means of updating, courses offer new knowledge in the field along with the stimulation of interacting with other professionals.

The field of parenting and child development is broad and complex. Education which promotes greater knowledge and feelings of capability can have far reaching effects.

Recommendations

Further research is suggested in several areas. Observational techniques of evaluation would be helpful in determining if there is a transfer of knowledge to skills. The long-term impact of parenting course could be determined by a longitudinal study. Further research is also needed to determine why students who are already parents do not enroll in a parenting course.

CHAPTER 4

CHILD DEVELOPMENT/PARENTING EFFECTIVENESS IN VOCATIONAL HOME ECONOMICS PROGRAMS IN OHIO

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Child development/parent education has been recognized as a valuable part of the educational experience of secondary level home economics programs in Ohio for many years. The vocational Home Economics Curriculum Guide (1974) offers teachers suggestions for units of study in home economics classes. In the guide, parent education concepts are included in units of child development, food and nutrition, management and consumer education, and family life. At the secondary level, these concepts are introduced in the seventh grade and continue at each level

through twelfth grade. For eleventh and twelfth grade students, there is an 18 week, semester course in child development.

During the 1978-1979 school year, there were more than 122,000 students enrolled in the vocational home economics programs across the state of Ohio. Approximately 4,500 of these students were enrolled in the one semester child development program.

This study was part of a national study receiving initial impetus from the American Vocational Association, Home Economics Division. As one part of the national study, this study was designed to determine if learners participating in home economics child development/parent education classes in secondary schools in Ohio have acquired knowledge of selected concepts and competencies related to child development/parent education as compared to learners who have not participated in these classes. The focus of the study was the impact of the Child Development Semester Course on students' knowledge of child development concepts, perception of their own competence in caring for chidren and their attitudes toward children and parenting.

The objectives of the study were:

1. To compare students enrolled in the Child Development Semester Course with non-home economics students on the following variables:

    a. current marital status or plans to marry in the future.
    b. current parental status or plans to parent in the future.
    c. concept of ideal family size.
    d. extent of experiential background with children.
    e. number of home economics courses elected while in school.
    f. non-home economics sources of child development parent education information.

2. To describe home economics teachers who are teaching the Child Development Semester Course on the following variables:

    a. child development/parent education concepts they teach.
    b. length of time they spend teaching each concept.
    c. importance they place on each concept.
    d. teaching strategies they use when teaching the child development/parent education concepts.

The specific hypotheses investigated were:

1. Child Development Knowledge Test posttest scores for students who participated in the Child Development Semester Course are higher than scores for students who did not participate in this class.

2. Perceived competency in caring for and interacting with children (Child Care Giving Competency Scale) posttest scores for students who participated in the Child Development Semester Course are higher than scores for students who did not participate in this class.

3. Attitude toward children and parenting (Attitudes Toward Parenting) posttest scores for students who participated in the Child Develpoment Semester Course are higher than the scores for students who did not participate in the class.

4. Posttest scores for students who participated in the Child Development Semester Course are higher than their pretest scores on the

   a. Child Development Knowledge Test
   b. Child Care Giving Competency Scale

   and lower (more positive) on the

   c. Attitudes Toward Parenting.

5. There is a positive relationship betweeen the number of child care giving tasks experienced by students and students' perceived competency in caring for and interacting with children (Child Care Giving Competency Scale) posttest scores.

6. There is a positive relationship between the teachers' use of strategies that incorporate interaction with children and:

   a. Child Development Knowledge Test posttest scores
   b. perceived competency in caring for and interacting with children (Child Care Giving Competency Scale) posttest scores

   and a negative relationship between the teachers' use of strategies that incorporate interaction with children and:

   c. attitudes toward children and parenting (Attitudes Toward Parenting) posttest scores.

Research Design

A quasi-experimental, pretest-posttest control group design was used in the study. In this design, based on Campbell and Stanley's (1963) Non-equivalent Control Group Design Number 10, the treatment is participation in the Child Development Semester Course.

Sample

The sample in the study was composed of three groups of people:

(1) home economics Child Development Semester Course teachers,

(2) students enrolled in home economics Child Development Semester Course, and

(3) students enrolled in a non-home economics class.

The students in the non-home economics classes formed the comparison group The comparison class in each school was selected by the principal and/or home economics teacher in that school on the basis of the similarity of these students to the child development students on such factors as age, sex, grade level, and ability. Students and teachers in 14 randomly selected schools across the state of Ohio participated in the study.

Instrumentation

The instruments used to collect data from students were:

1. Child Development Knowledge Test (CDKT)
2. Child Care Giving Competency Scale (CCGCS)
3. Attitudes Toward Parenting (ATP)
4. Personal Data Questionnaire (PDQ)

These instruments with the exception of CDKT (Appendix A) are in Appendix B.

Data for the study were collected from home economics teachers on two instruments:

1. Checklist to Identify Child Development/Parenting Concepts Taught (CDCT)
2. Teaching Strategies Rating Scale (TSRS)

See Appendix B.

The CDKT was developed through a cooperative effort of faculty and graduate students at The Ohio State University, Iowa State University,

and University of Minnesota, Duluth. This 40-item multiple choice test was designed to measure students' knowledge of selected child development/parent education concepts.

In addition to a measure of students' knowledge of child development concepts, an attempt was made to gain some information on the change in students' attitude toward children and parenting. For this study, a modified form of the Parental Attitude Research Inventory (PARI) was used to measure this attitude. The PARI, developed by Schaefer and Bell (1958) is composed of 23 five item scales. With the guidance of a faculty member from the Department of Family Relations and Human Development at The Ohio State University, seven scales were selected. The items from these seven scales were used to construct the instrument used in this study and titled Attitudes Toward Parenting (ATP).

All other instruments were developed, cooperatively, by three home economics education graduate students and their faculty adviser at The Ohio State University. The CCGCS, a 20 item, five-point rating scale, was designed to measure students' perception of their own ability in caring for and interacting with children.

The PDQ was designed to gather information about each student. This information includes grade level, age, sex, number of home economics courses in which the student has enrolled, experience with children and social class. To determine the student's social class, the Two Factor Index of Social Position, developed by August Hollingshead (1957) was used.

The CDCT and TSRS were designed to provide some information in regard to the home economics teachers' perception of the importance of

the child development/parent education concepts and the teaching strategies they use when presenting this information. Both the CDCT and TSRS are five-point rating scales.

All of the instruments used in this study were tested in a pilot study, conducted in six schools in Ohio during May, 1979. Students in home economics Child Development Semester Course classes as well as a group of comparison students in each school participated in the pilot study. In November, 1979, the revised instruments were tested with home economics students enrolled in child development classes in two schools in the state of Pennsylvania.

Procedure

Fourteen schools in the state of Ohio participated in the study. These schools were selected at random. The frame for the population in the study was constructed from the secondary schools in the state of Ohio that offer the Child Development Semester Course (eleventh and twelfth grade) within the Vocational Consumer-Homemaking program.

Materials for each student were given a numeric code and individual packets of materials were prepared for each student. Students completed all four instruments, the CDKT, the CCGS, the ATP. and the PDQ, at both pretest and posttest time. Pretest materials were mailed to the schools in January, 1980. Posttest materials were mailed to the schools in May, 1980. Following both testing episodes, materials were returned, by mail, to the researcher.

Teachers completed the CDCT and the TSRS at posttest time. They were also asked to report any conditions that might effect the results of the testing for their students.

Data Analysis

Four statistical procedures were used to test the six hypotheses and respond to the two objectives guiding this study: frequencies, t-tests, Pearson product moment correlation, and analysis of covariance. T-tests to determine differences between child development classes and comparison classes were computed for the 28 groups. The t-test pairs, was used to examine differences between pre and posttest scores from the three main instruments. The Pearson product moment correlation was used to determine relationship between students' experiences with children and perceived competency, between teachers' use of interaction teaching strategies and posttest scores on the three primary instruments, and between independent and dependent variables as basis for selection for covariates in ANCOVA. ANCOVA was used to determine differences between child development and comparison group-on posttest scores from three instruments.

The t-test procedure, pairs, was used to determine if there was a statistically significant difference between pretest and posttest scores for child development students on the CDKT, the CCGCS, and the ATP.

Pearson product-moment correlation was used to determine the strength of the relationship between the students' experience in performing selected child care giving tasks and their perceived competency in performing these tasks. It was also used to test the strength of the relationship between teachers' use of interaction teaching strategies and child development students' posttest scores on the CDKT, the CCGCS, and the ATP. Pearson product-moment correlation was used to determine the relationship between each independent variable and the dependent

variables as a basis for selection of covariates in the analysis of covariance.

Analysis of covariance was used to test the difference between the child development students and comparison group students on posttest scores of knowledge of child development/parent education concepts, their perceived competency in caring for children and attitudes toward children and parenting. Covariates in the analysis of covariance models were selected on the strength of the relationship between the dependent variable, posttest score, and the independent variables. Differences between groups on the variables were also factors in the selection of covariates.

Findings and Discussion

There were 335 students who participated in the study. Two hundred sixty-five students (79%) were female and 70 (21%) were male. There were more male students in the comparison group than in the child development group. The larger number of male students in the comparison group resulted in a significant difference between the two groups on the variable sex (Table 4.1).

Students in the child development group and the comparison group were similar on grade level, social class, CDKT and ATP pretest score variables. They were also similar to one another in their future plans to marry and become parents and in their perception of ideal family size. Students in the two groups differed significantly in age, their experiences with children, the number of home economics courses they had elected and the influence from these courses. They also differed significantly in their perception of the contribution of non-home economics

Table 4.1
Mean Differences Between Child Development and Comparison Students on Independent Variables Used in the Study

Variable	Group	Mean	SD	t	df	p
Number of Students	1[a]	11.8	4.40	-.23	26	.82
	2[b]	12.1	3.80			
Number of Female Students	1	10.8	4.20	1.75	26	.09
	2	8.1	4.20			
Number of Male Students	1	.9	1.50	-3.25	18.1	.004
	2	4.1	3.30			
Age	1	17.0	.30	3.17	26	.004
	2	16.5	.50			
Grade Level	1	11.5	.24	1.90	16.9	.07
	2	11.2	.62			
Social Class	1	3.8	.44	.33	26	.74
	2	3.8	.35			
Experience With Children	1	9.1	1.60	2.61	26	.02
	2	7.5	1.60			
Number of Home Economics Courses Elected	1	3.7	.88	6.49	26	.000
	2	1.6	.90			
Perceived Influence from Home Economics Courses	1	8.9	2.40	7.21	26	.000
	2	3.1	1.70			
Perceived Contribution of Non-Home Economics Courses	1	12.3	2.20	4.58	26	.000
	2	8.6	2.10			
Pretest Child Development Knowledge Test	1	23.5	3.70	1.33	26	.19
	2	21.8	2.80			
Pretest Child Care Giving Competency Scale	1	61.1	5.10	2.42	26	.02
	2	56.9	3.90			
Pretest Attitudes Toward Parenting	1	80.1	4.00	.68	26	.50
	2	79.2	3.20			

[a]Group 1 - Child Development Students
[b]Group 2 - Comparison Group Students

sources to their knowledge of child development concepts and their perception of their ability to care for children.

The mean age for students in the child development group was 17. For the comparison group, the mean age was 16.5. Babysitting and caring for children in the family were identified as the most valuable experiences for students in both groups. Child development students reported that the playschool experience that was part of the home economics program was also an important experience in regard to its contribution to their knowledge of children.

It was not possible to find an intact group of comparison students with a high percentage of female students whose members had not had some home economics courses during their secondary education experience, grades 7 through 12. However, the number of home economics courses selected by students in the intact groups that served as comparison students for the study, was significantly fewer than the number of courses elected by students in the child development group.

Thirteen of the 14 child development teachers completed the CDCT and the TSRS. These teachers appeared to hold similar opinions in regard to the importance of the child development/parent education concepts. Only topics in concept V, Special Concerns, were not taught by the majority of teachers. The topics of Children With Special Needs, Family Support Services and Child Support Services and Legislation were taught by fewer teachers than any of the other concepts. Concept II, Prenatal Development and Birth and Concept III, Growth and Development throughout Childhood were the two concepts identified by teachers as the most important areas of study.

Teachers were also similar in their use of teaching strategies. Teaching strategies such as lecture and discussion were included in the Personal Communication Strategies. These were the most frequently used teaching methods. Filmstrips were the most frequently used Audio Visual Teaching resource. Nine of the 13 teachers reported that they used a play school as part of the child development program. The length of time spent on a play school was included as one of the Interaction Teaching Strategies (Table 4.2).

Although posttest mean scores on the 40 item CDKT were higher for child development students than posttest mean scores for comparison students, the analysis of covariance showed no statistically significant difference between the adjusted posttest mean scores on the CDKT for child development students and students in the comparison group. There was a difference of .7 points between the two groups on the adjusted posttest mean scores (Table 4.3).

These findings may have been caused by several factors. Instrumentation may have been one factor. Although considerable effort was made to develop an instrument that would measure the concepts that were taught by teachers of the child development classes, the CDKT may not have been as accurate a measure of student knowledge of these concepts as was intended. It was necessary to control the length of the test and in so doing, the number of questions used to measure some concepts was limited and perhaps the most appropriate questions were not selected for inclusion in the CDKT. In the main study, teachers were asked to identify any concepts included in the test that were not included in their curriculum. From the teacher response it would appear

Table 4.2

Selected Teaching Strategies as Rated by Teachers according to Frequency of Use when Teaching Child Development/Parenting Concepts

Teaching Strategies	Mean for All Teachers Reporting
I. Audio Visual Strategies	
1. Films	1.77
2. Film Strips	2.38
3. Video Tapes	1.31
4. Slides	.92
5. Audio Tapes	1.31
Mean score for all strategies	1.54
II. Personal Communication Strategies	
6. Lecture	2.85
7. Discussion	3.08
8. Student Presentations	1.61
9. Role Playing	1.31
10. Resource Persons	1.85
Mean score for all strategies	2.14
III. Interaction Strategies	
11. Visits by Parents with Their Infants and/or Preschool Age Children	1.69
12. Play School in Your School	2.15
13. Participation in a Public or Private Day Care Center	1.23
Mean score for all strategies	1.68

Note: Data from 13 teachers

Maximum score = 5

that with few exceptions all the concepts included in the CDKT were being taught in the Child Development Semester Course.

In this study, it was not possible to obtain observation data on students' ability to work with children. The CCGCS was designed to permit students to report their perception of their own behavior or skill when dealing with children. As with all self report data, there is a risk of student bias becoming evident in the results. The maximum score on the CCGCS was 80 points. Students were asked to indicate whether or not they had experienced each of the 20 child care giving situations included on the CCGCS. Students were also asked to rate their perceived competence in caring for a child in each situation.

When posttest mean scores were adjusted for pretest differences, analysis of covariance showed no difference between the two groups (Table 4.3). On the unadjusted mean scores there was a difference of 4.4. points between the two groups with child development students scoring higher than comparison students. When the scores were adjusted, the difference was less than one point, .5, with the comparison students scoring higher than the child development students. This difference was not statistically significant.

Participation in the Child Development Semester Course had no significant effect on students' perception of competency. Perhaps society is providing opportunities for students to build their competence before they come to class and activities provided in the class experience do not build on their perception of their ability. Another possible explanation is that students gain a realistic perception of their level of competency after participating in a child development course.

Table 4.3

Posttest Mean Scores and
Adjusted Posttest Mean Scores Resulting
from Analysis of Covariance

Group	n	Unadjusted Mean	SD	Adjusted Mean
Child Development Knowledge Test				
Child Development	14	25.7	3.7	24.8
Comparison	14	23.2	2.8	24.1
Multiple R squared	.834			
Multiple R	.913			
Child Care Giving Competency Scale				
Child Development	14	62.1	4.3	59.7
Comparison	14	57.7	4.35	60.2
Multiple R squared	.750			
Multiple R	.866			
Attitudes Toward Parenting				
Child Development	14	79.3	4.7	78.7[a]
Comparison	14	80.6	4.3	81.2[a]
Multiple R squared	.834			
Multiple R	.913			

[a]lower mean represents more positive attitude.

The maximum score on the ATP was 140. A lower score indicates a more positive attitude toward children and parenting. From pretest to posttest, mean scores on the ATP improved for students in the child development group. For students in the comparison group, pre and posttest ATP scores indicated a change to a less positive attitude. For child development students, the pretest mean score was 80.1. Their posttest mean score was 79.2. Child development students' attitude score improved by .9 points. The pretest mean score for comparison students was 79.2 while their posttest mean score was 80.6. Comparison students had an increase of 1.4 points at posttest time.

There was a difference of 2.5 points between the two groups on the adjusted mean scores (Table 3). However, this difference was not statistically significant at the .05 level. The lower score, 78.7, for the child development students indicates an attitude toward children and parenting that is more beneficial to children than that of the comparison group students.

The results of the study in regard to this finding may be explained in part by the ATP. A measure of attitude toward children and parenting designed for use with adolescents who are not parents was not available. It was necessary to modify an existing instrument to measure attitude. The 35 items that made up the seven subscales included in the ATP were selected from a total of 115 items in the 23 subscales that make up the complete PARI. As with the CDKT, even though careful consideration was given to the selection of the subscales for the ATP. this might not have been as appropriate a measure as one designed specifically for use with the adolescent, non-parent population. It is not possible to determine

if students were responding and answering these items from their perspective as children in a family, reflecting the attitude they think their own parents should have or as a prospective parent themselves.

Pretest mean score on the CDKT for child development students was 23.5. Posttest mean score for these students was 25.7. Results of the paired sample t-test indicate that the slight improvement, 2.2 points, was statistically significant at the .0005 level (Table 4.4).

Mean pretest score for students in the child development group on the CCGCS was 61.6. Their mean posttest score was 62.1. There was an increase in score of 1 point from pretest to posttest. The t-test showed that there was no statistically significant difference in scores for competency from pretest to posttest for child development students (Table 4.4).

For students in the child development group, the t-test showed a statistically significant change in attitude from pretest to posttest. The mean pretest score was 80.1 and the mean posttest score was 79.3. This slightly lower score, .9 points, at posttest time indicates an improvement in attitude (Table 4.4).

A statistically significant positive relationship was evident between the number of child care giving tasks experienced by students and their posttest scores on the CCGCS. The high correlation coefficient, .86 was statistically significant at the .05 level.

Pearson Product-moment correlation was used to test the relationship between the teachers' use of Interaction Teaching Strategies and students' posttest mean scores on the CDKT, the ATP and the CCGCS. The coefficient for the relationship between the teachers' use of this

Table 4.4

Differences between Mean Pretest Scores and Mean Posttest Scores for Child Development Students on the CDKT, the CCGCS and ATP

Time of Test	Mean	SD	t	df	p
Child Development Knowledge Test					
Pretest	23.5	3.7	4.07	13	.0005
Posttest	25.7	3.9			
Child Care Giving Competency Scale					
Pretest	61.6	5.1	1.02	13	.164
Posttest	62.1	4.3			
Attitudes Toward Parenting					
Pretest	80.1	4.0	-1.76	13	.05
Posttest	79.3	4.7			

strategy and the students' posttest mean score on the CDKT was .08. While this is a positive relationship, indicating that the more frequently teachers provided students with an opportunity to interact with children, the higher score they would attain on the knowledge test, this low relationship was not significant at the .05 level (Table 4.4).

The coefficient of the relationship between the teachers' use of Interaction Teaching Strategies and students' posttest mean scores on the competency scale (CCGCS), was -.32 and was not significant at the .05 level (Table 4.4). This negative relationship indicates that mean scores for perceived competency in caring for children are lower for students whose teachers provide more opportunity for students to interact with children than for students whose teachers provide fewer opportunities for interaction with children.

This negative relationship was an unexpected result. Perhaps when students are working with children within the structure of a classroom setting, the concern for evaluation of their performance might result in a less favorable self appraisal of their competence. Perhaps students receive natural consequences feedback and this may result in more realistic expectations, self concept and abilities.

A lower score on the ATP reflects an attitude that is beneficial to children. The correlation coefficient, -.16, indicates a weak negative relationship between the teachers' use of Interaction Teaching Strategies and students' attitudes toward children and parenting. Although the correlation suggests a relationship between teachers' use of Interaction Teaching Strategies and lower (more beneficial) student posttest mean scores on the ATP, the coefficient was not statistically significant at the .05 level (Table 4.5).

Table 4.5

Relationships between Teachers' Use of Interaction Teaching Strategies and Students' Posttest Scores

Dependent Measure	n	Coefficient of Correlation	Level of Significance
CDKT	14	.08	.40
CCGCS	14	-.32	.14
ATP	14	-.16	.30

Summary

Objective 1. Comparison of child development and non-home economic students.

Child development and comparison group students did not differ statistically in their future plans to marry and parent. They also appeared to hold similar opinions on the ideal number of children in a family. Child development students were likely to have more experiences with children than students who did not participate in a child development course. More home economics courses were elected and the influence from these courses appeared to be greater for child development students than for students in the comparison group. Child development students appeared to receive more influence on their knowledge of child development/parent education concepts, attitude toward parenting and competency in caring for children from non-home economics sources than did comparison group students.

Objective 2. Description of home economics teachers teaching Child Development Semester Course.

Home economics teachers who were teaching a Child Development Semester Course were likely to hold similar opinions regarding the importance of selected child development/parent education concepts. Concept II, Prenatal Development and Birth, and Concept III, Growth and Development throughout Childhood, appeared to be the two areas of greatest importance. Teachers spent approximately the same length of time teaching the five concept areas. Teachers were also likely to use similar teaching strategies when presenting the child development/parent education concepts.

Hypothesis 1-3. Differences in knowledge, competency and attitude posttest scores for child development and comparison groups.

The Child Development Semester Course, part of the Vocational Consumer-Homemaking programs in Ohio, as evaluated in this study, does not appear to have a significant impact on students' knowledge of child development/parent education concepts, their perceived competency when caring for and interacting with children and their attitude toward children and parenting. Thus, hypotheses 1-3 are rejected.

Hypothesis 4. Higher posttest than pretest scores for child development students.

However, students who participated in the course were likely to show statistically significant improvement on posttests measuring child development/parent education knowledge. Hypothesis 4a is not rejected. Even with significant improvement, mean scores at posttest time reflected students responding correctly to only 64% of the items. Enrollment in the Child Development Semester Course brought about a significant improvement in attitude toward children and parenting. Students who were not enrolled in the class were likely to show a more negative attitude toward children and parenting over time. Hypothesis 4c is not rejected. Participation in the course did not significantly increase students' perception of competency as measured by CCGCS when caring for children and hypothesis 4b is rejected.

Hypothesis 5. Relationship between experiences with children and perceived competency.

A statistically significant relationship between number of child care giving tasks and perceived competency in caring for and interacting with children was found. Hypothesis 5 is not rejected.

Hypothesis 6. Relationship between teachers' use of interaction with children teaching strategies and posttest scores from three main instruments.

Statistically significant relationships were not found for any of the three posttest scores. The three subhypotheses for hypothesis 6 are rejected.

Discussion

There are several factors that may have influenced the findings associated with this study. It was not possible to eliminate from the study all students in the comparison group who had some home economics courses. According to the Vocational Home Economics Curriculum Guide for Ohio (1974), child development/parent education concepts are included as part of the curriculum for courses offered in grades seven through 12. If a student elected any one of these courses offered, there is a risk of the influence from those home economics courses being reflected in the scores of comparison group students. This influence would confound the effect of treatment when attempting to measure differences between the two groups as a result of the impact of one course, the Child Development Semester Course.

Another factor possibly contributing to the results of the study is the students' reading skill. This would effect student responses on all four instruments. Teachers in two schools reported that their students had difficulty reading the test. One of these teachers reported that she had to read some of the questions to her students. These students were identified as special education students. Although only two teachers reported problems with reading, there may have been problems, perhaps with comprehension or interpretation of questions for students in other schools.

The conditions in the testing situation in both the child development and comparison group classroom and attitude of students toward participation in the testing process might also have affected the findings of this study. One teacher reported that her students were sensitive to the fact that they were being studied and felt that they were "targets" because they were "poor or slow" or different from other students in some way.

Timing of the posttest close to the end of the school year may have caused some difficulty. One teacher mentioned the problem of motivating students at the end of the school year, to take a serious attitude toward the study. One teacher reported that because of a change of plans, she had to administer the test just prior to senior final exams. Although her students did not complain, she felt the situation worthy of mention and possible concern.

Students may have been overwhelmed by having to complete the four instruments in one class period. Teachers did not report this as a problem in the pilot studies conducted in May and November, 1979, nor in the main study. However, this may have been a factor and students may have felt rushed to complete the four instruments and were not able to repond with care and accuracy.

Another possible factor influencing the results of the study is the treatment itself. It was assumed that all child development teachers are teaching the same concepts. This is not the reality of the situation. It was not possible to monitor the manner in which the treatment was provided for students in each of the schools. The data provided by teachers on the CDCT and TSRS gave limited information in

regard to treatment. These are self report data and teachers' responses may reflect differences in interpretation of the descriptive terms on the two rating scales.

A possible explanation for low scores on the CDKT is that students come to the class with some knowledge of child development concepts. It is recognized that a person's knowledge of child development and parenting practices is influenced by many different sources. In this culture, parenting practices and knowledge of children are passed from one generation to the next by members of the family. Members of the community also share knowledge and attitudes concerning children and with the availability of media in disseminating information, knowledge related to child development becomes available to many people. Teachers may be unaware of the extent and type of knowledge students bring to the classroom. Perhaps when planning lessons, teachers are emphasizing those concepts that students have already acquired and reinforcing this knowledge rather than building on students' prior information and expanding their knowledge. As a preliminary step in planning for the Child Development Semester course, it might be judicious for teachers to evaluate, in some way, the knowledge their students bring to class. With this information, teachers can build on students' knowledge base and plan lessons that will enable students to increase their knowledge of these concepts.

The disordinal change in scores from pretest to posttest on the ATP between the two groups indicated that perhaps the impact of the Child Development Semester course is greater in effecting a change in attitude than in effecting changes in knowledge or competency. Maybe when

planning the child development/parent education curriculum, more emphasis should be placed on the affective domain in a deliberate attempt to bring about changes in attitude. Value reasoning could be used to help students base values, attitudes on fact rather than tradition in their families. If a student, through the experience of a child development class, improves his/her attitude toward children and parenting, the long term efects will be impressive. When the adults in a society demonstrate attitudes that are beneficial to children, problems in adult-child relationships are minimized, the child's self image is enhanced and as the child grows to adulthood, his/her attitude toward children will be beneficial for the child of the next generation. A cycle of improved parenting behavior can then be set in motion. The experience of an 18 week semester course has the potential to initiate changes that will affect future generations.

Recommendations for Research

Several areas of concern for future research were discovered as a result of this study. Recommendations for additional research are:

1. Replicate the study using fewer schools which would enable the researcher to monitor the testing procedures, observe the treatment on several occasions and perhaps interview students. A smaller sample would enable the researcher to gain insights into the classroom stiuation that were not available in this study.
2. Develop an instrument to measure adolescents' attitude toward parenting and use this measure to evaluate change in attitude as a result of participation in a child development/parent education class.

3. Investigate the various forms of treatment, i.e. the teaching strategies and methods used by child development teachers when presenting this information to students. This could be done in an attempt to determine if some techniques are more effective than others for influencing students' knowledge, competency and attitude. This may lead to information that can be used to establish the format for an effective form of treatment.
4. Conduct a study using only the knowledge test. Because the testing period will be used to complete only one instrument instead of four, the number of items on the test can be increased. The addition of more items will enhance the ability of the test to measure each concept in greater depth. If students are required to complete only one instrument in a testing period, they may take the time to respond to each item with more care and accuracy and perhaps improve their test scores.
5. Seek suggestions from teachers on specific items to be included in a knowledge test. The test would then reflect more accurately the actual concepts being taught in the class and enhance the validity of the instrument. This procedure might also heighten teacher awareness of the importance of the assessment of child development/parent education programs and increase inserest in participation in such a study.
6. Evaluate each Child Development Semester Course on an individual basis, using a knowledge test that was designed to measure concepts actually taught by the child development teacher in

that school. This would limit the scope of the study. However, such a procedure may assess more accurately the impact of a program on students' knowledge than does a study that is attempting to make an assessment using a test that is general rather than specific and is designed to be comprehensive enough to be used in a variety of child develoment/parent education classrooms.

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APPENDIX A

CHILD DEVELOPMENT KNOWLEDGE TEST

Directions:

For each question, select the answer you think is the best answer. After you have made your decision, write the letter of the answer you selected in the correct space on the answer sheet. When you have finished the test, be sure to insert the completed answer sheet back into the test.

1. What should one do first before deciding to become a parent?

   A. Examine one's feelings and reasons for wanting a child.

   B. Talk with others who have raised children

   C. Read books and magazine articles on parenting.

   D. Do all the "fun" things one wants to do.

2. Which situation provides an opportunity to use parenting skills when a child does not live in the home?

   A. Work with young people at the "Y".

   B. Send money to needy children.

   C. Write newspaper stories about children.

   D. Lecture students in the classroom.

3. How many times a family's income does it take to raise a child to age 18?

   A. 1

   B. 1½

   C. 2

   D. 2½

4. How would a person go about developing confidence in his/her ability to be a parent?

   A. Accept yourself as you are.

   B. Specialize in what you do best.

   C. Set attainable goals for yourself.

   D. Find opportunitites to work with children.

5. Which is not true of a good community day-care program?

   A. Conducts after school program for elementary school children.

   B. Restricts attendance to children 18 months of age or older.

   C. Takes the place of children's home for part of the day.

   D. Offers children individual attention and affection.

6. Jerry is playing noisily with his tractor; Sally is quietly reading a book. Which factor least affects this behavior?

   A. Parents' attitudes.

   B. Television viewing.

   C. Brothers' and sisters' attitudes.

   D. Heredity.

7. Where is an egg cell usually fertilized?

   A. Uterus

   B. Vagina

   C. Fallopian tube

   D. Ovary

8. When does ovulation usually occur on a 28-day menstrual cycle?

   A. During the first 3-5 days.

   B. During the first 8-10 days.

   C. On or about the 14th day.

   D. During the last 3 or 4 days.

9. In which situation will the Rh factor create a problem with pregnancies following the birth of the first child?

   A. Mother and father are Rh positive.

   B. Father is Rh negative and mother is Rh positive.

   C. Mother is Rh negative and father is Rh positive.

   D. Mother and father are Rh negative.

10. During which period of pregnancy are serious birth defects likely to occur?

   A. Conception to 3 months.

   B. 3 to 5 months.

   C. 5 to 7 months.

   D. 7 to 9 months.

11. Which disease can cause birth defects in an infant if contracted by the mother during early pregnancy?

   A. Rubella

   B. Pneumonia

   C. Influenza

   D. Diabetes

12. How should a woman modify the amount of food eaten from the Basic Four during pregnancy?

    A. Fewer servings from each group.

    B. Fewer servings from the grain group.

    C. More servings from each group.

    D. More servings from the milk group.

13. Which is a symptom for concern during pregnancy?

    A. Decrease in the amount of urine passed.

    B. More frequent urination.

    C. Mucous discharge from the vagina.

    D. Shortness of breath during the last trimester.

14. What is the last thing that happens in the delivery process?

    A. Baby is born.

    B. Uterine bleeding stops.

    C. Placenta is expelled.

    D. Breastmilk is produced.

15. What is the first opportunity to establish mother-infant bonding?

    A. Breastfeed the newborn infant.

    B. Place the newborn on the mother's body.

    C. Create a loving home for the newborn.

    D. Have the newborn stay in the same room as mother.

16. Which statement best describes newborn babies?

    A. They are extremely delicate and fragile.

    B. They smile in response to their mother's attention.

    C. They cry when hungry or uncomfortable.

    D. They need to be fed on schedule.

17. When using words, what is a 2-year-old child likely to do?

A. Starts putting five or more words into sentences.

B. Starts putting two or three words together.

C. Constantly asks questions.

D. Babbles and slurs the words.

18. An example of a large-muscle building toy for a 5-year-old is

A. Scissors.

B. Measuring cups.

C. Scooter.

D. Color prisms.

19. When does a baby's sense of trust begin to develop?

A. At birth.

B. When the baby can perform basic skills successfully.

C. When the baby starts to talk.

D. When the baby starts to walk.

20. A good way to help a child deal with his/her feelings of jealousy is to

A. Punish him/her when he/she shows signs of jealousy.

B. Explain to him/her why it is "silly" to be jealous.

C. Show him/her why jealousy is bad.

D. Try to give him/her more attention.

21. If a 3 or 4 year old has an imaginary friend, it indicates that he/she

A. Needs affection.

B. Has a vivid imagination.

C. Is seeking more attention from his/her parents.

D. Needs a brother or sister.

22. When a child receives adequate expression of affection from his/her parents, the child will

    A. Find it easier to accept himself/herself and others.

    B. Learn to expect his/her parents to give him/her gifts as an expression of their affection.

    C. Become dependent on others for constant displays of affection.

    D. Always be obedient as a way of returning their love.

23. The intellectual development of the baby before birth can be influenced by

    A. Basic nutritional condition of the mother.

    B. The physical exercise of the mother.

    C. The educational level of the parents.

    D. The type of reading done by the mother during pregnancy.

24. An infant's intellectual development can <u>best</u> be stimulated by

    A. A small, affectionate pet.

    B. Use of mobiles and colorful toys.

    C. A busy, noisy environment.

    D. Providing time in a play pen.

25. In helping children develop sound language patterns, parents should

    A. Use short words and sentences.

    B. Use baby talk.

    C. Speak clearly in normal tones.

    D. Speak slowly and emphasize each word.

26. When a child is playing in a sandbox, filling and emptying containers, he/she is most likely developing the idea of

A. Number

B. Texture

C. Space

D. Shapes

27. What kinds of playthings are <u>least</u> effective in stimulating a child's creative self-expression?

A. Paints, clay, tools.

B. Wind-up or mechanical toys.

C. Blocks and manipulative toys.

D. Coloring books and crayons.

28. A child's ability to be creative may be lessened when parents

A. Present situations that stimulate curiosity.

B. Permit the child to explore.

C. Accept the child's ideas.

D. Provide a model for the child to copy.

29. With what kind of play activities can a 2-year-old be most successful?

A. Coloring pictures.

B. Cutting with child-size scissors.

C. Stacking blocks into towers of four blocks high.

D. Riding a tricycle.

30. When children are learning to dress themselves, provide clothing with

A. Large buttons.

B. Small buttons and snaps.

C. Zippers in the back.

D. Separating zippers

31. Television influences children by showing

A. Cartoon characters acting nice to each other.

B. Characters which children imitate.

C. Many realistic family scenes.

D. Few violent shows.

32. To prevent problems at mealtime, a parent should

A. Make the child eat everything served.

B. Insist on large servings.

C. Promise dessert as a reward.

D. Provide pleasant conversation.

33. Sue, age 3, took several cookies against her parent's orders. The parent should tell Sue that

A. She is a bad girl.

B. Her behavior makes the parent unhappy.

C. She'll get punished next time.

D. She'll grow up to be a thief.

34. Which of the following would <u>not</u> be a sign that an infant might be ill?

A. Glassy-looking eyes.

B. Feverish face.

C. Unusually hungry.

D. Listlessness.

35. Which of the following treatments should be used for minor burns?

A. Hold the burned area under lukewarm running water.

B. Cover the burned area with butter.

C. Immediately place the burned area in cold water.

D. Break the small blisters which form.

36. If a child swallows a poison, you should

A. Try to make the child vomit or throw up immediately.

B. Call a doctor or poison control center.

C. Keep the child active and moving.

D. Have the child drink soda pop.

37. Low birth weight, abnormal heart, joint defects and abnormal eye shapes are possible birth defects due to the mother's use of

A. Cigarettes.

B. Coffee.

C. Cola beverages.

D. Beer or liquor.

38. Which is an example of child abuse?

A. Sending the child to his/her room without dessert.

B. Not allowing TV viewing for 2 weeks

C. Constantly criticizing the child.

D. Making the child sit on a chair for an hour for punishment.

39. Children who are disadvantaged would benefit most by

A. Playing with their neighbors.

B. Starting kindergarten a year later than usual.

C. Visiting parks and playgrounds.

D. Participating in a Head Start program.

40. Which would be most likely to have planned activities to prepare children for kindergarten?

A. Family day care centers.

B. Group day care center.

C. Nursery schools.

D. Home care by a friend or relative.

Table A.1

Item Difficulty Indices for Child Development/Parenting Knowledge Test Using Child Development/Parenting Group Data from The Ohio State University, Iowa State University, and University of Minnesota, Duluth

	OHIO n = 165	IOWA n = 268	MINNESOTA n = 773
1.	.87	.86	.93
2.	.92	.84	.94
3.	.48	.42	.35
4.	.55	.59	.56
5.	.45	.53	.49
6.	.59	.49	.57
7.	.67	.68	.63
8.	.61	.67	.68
9.	.35	.44	.42
10.	.62	.58	.70
11.	.77	.82	.77
12.	.39	.42	.34
13.	.39	.33	.41
14.	.70	.76	.72
15.	.73	.56	.75
16.	.50	.48	.56
17.	.54	.55	.53
18.	.86	.73	.84
19.	.78	.69	.83
20.	.38	.33	.37
21.	.68	.60	.67
22.	.77	.68	.82
23.	.79	.69	.82
24.	.86	.63	.79
25.	.66	.62	.70
26.	.59	.59	.70
27.	.74	.67	.83
28.	.73	.68	.80
29.	.73	.58	.80
30.	.82	.71	.89
31.	.50	.51	.62
32.	.72	.64	.74
33.	.76	.65	.82
34.	.66	.66	.73
35.	.62	.62	.70
36.	.72	.64	.69
37.	.53	.58	.51
38.	.94	.84	.89
39.	.72	.68	.77
40.	.72	.64	.76

Table A.2

Item Discrimination Indices for Child Development/Parenting Knowledge Test Using Child Development/Parenting Group Data from The Ohio State University, Iowa State University, and University of Minnesota, Duluth

	OHIO n = 165	IOWA n = 268	MINNESOTA n = 773
1.	.20	.36	.14
2.	.24	.45	.18
3.	.16	.13	.27
4.	.28	.35	.34
5.	.36	.11	.15
6.	.51	.31	.45
7.	.34	.39	.33
8.	.44	.34	.42
9.	.14	.35	.37
10.	.31	.43	.36
11.	.33	.49	.37
12.	.09	.18	.15
13.	.54	.35	.39
14.	.34	.33	.22
15.	.18	.31	.32
16.	.51	.30	.45
17.	.35	.33	.32
18.	.24	.43	.26
19.	.39	.36	.32
20.	.31	.10	.19
21.	.38	.32	.33
22.	.46	.53	.41
23.	.20	.47	.29
24.	.19	.46	.32
25.	.48	.45	.43
26.	.65	.47	.33
27.	.36	.40	.28
28.	.62	.57	.50
29.	.14	.45	.28
30.	.20	.45	.11
31.	.42	.39	.51
32.	.36	.45	.46
33.	.42	.49	.33
34.	.48	.34	.46
35.	.26	.37	.20
36.	.21	.38	.37
37.	.29	.24	.17
38.	.11	.38	.15
39.	.41	.51	.38
40.	.38	.31	.21

APPENDIX B

Parenthood Attitude Survey (Iowa)

Directions: This instrument is designed to find out about your attitudes concerning your readiness for parenthood. There are no right or wrong answers.

Read each question carefully and indicate how capable you feel you are RIGHT NOW in that area by blackening a letter on the answer sheet. Choose A if you do not feel capable now in that area; choose E if you feel very capable; or choose a letter somewhere between the two which best indicates how capable you feel you are AT THIS TIME.

HOW CAPABLE DO YOU FEEL ABOUT PARENTHOOD?

A	B	C	D	E
Not at all	A little	Some	Quite a lot	A Great Deal

NOTICE THAT YOU BEGIN THIS SECTION WITH NUMBER 51 ON YOUR ANSWER SHEET.

1. Deciding whether or not to have children.
2. Preventing unwanted pregnancy.
3. Providing financially for the needs of children.
4. Giving up personal freedom while raising a child.
5. Providing a desirable home atmosphere for children.
6. Being a role model for children.
7. Understanding how the female reproductive system works.
8. Understanding how the male reproductive system works.
9. Knowing how pregnancy begins.
10. Providing the baby with good care before birth.
11. Choosing a healthy diet for a pregnant woman.
12. Recognizing symptoms for concern during pregnancy.

13. Understanding how the use of substances such as alcohol and tobacco may be dangerous to the unborn child.

14. Knowing what to expect during the birth process.

15. Making choices concerning methods of childbirth.

16. Helping a child develop his/her large and small muscles.

17. Caring for a newborn baby.

18. Knowing whether a child's physical development is typical for his/her age.

19. Calming an emotionally upset child.

20. Dealing with a stubborn child.

21. Helping children play together.

22. Expressing affection to a child.

23. Reading stories to children.

24. Choosing stimulating toys for children.

25. Teaching children names for objects.

26. Helping a child learn to speak.

27. Helping children develop their imagination through make-believe play.

28. Using music and dance to help children express their feelings.

29. Stimulating a child's creative self-expression.

30. Teaching a child to fed himself/herself.

31. Dealing with a child who insists on staying up past the appointed time.

32. Assisting a child with toilet training.

33. Setting limits for a child's behavior.

34. Selecting nutritious food for children.

35. Caring for a child in an emergency situation.

36. Making the home a safe place for children.

37. Helping children develop to their fullest potential.

38. Recognizing signs of child abuse.

39. Knowing where to seek help for family problems.

40. Choosing good child care services.

Multiple Choice: Choose the option which best answers the question for you.

41. Do you plan to be a parent?

a. I do not expect to be a parent.
b. I expect to become a parent 5 or more years from now.
c. I expect to become a parent in 3-5 years.
d. I expect to become a parent in 1-2 years.
e. I am a parent now.

42. Compared to other teenagers, I would judge the amount of experiences I have had in taking care of children to be:

a. A lot less than most teenagers.
b. Somewhat less than most teenagers.
c. An average amount.
d. Somewhat more than most teenagers.
e. A lot more than most teenagers.

43. Most of my experiences in taking care of children have been: (choose one)

a. In home economics classes at school.
b. At church. (Teaching Sunday School, Bible School, etc.)
c. Working at a day care center or nursery school.
d. Babysitting outside the family.
e. At home with younger brothers and sisters.

STUDENT INFORMATION (Minnesota)

41. Which of these home economics classes have you completed? Mark on the answer sheet each one you have completed.

a. 7th grade home economics
b. 8th grade home economics
c. 9th grade home economics
d. Family Living (quarter or semester class)
e. Child Development (quarter or semester class)

42. Have you taken child care courses given by any of the following? Mark the answer sheet for any of these child care classes you have taken.

a. Girl Scouts or Boy Scouts
b. 4-H
c. YMCA/YWCA
d. Other community organizations
e. I haven't taken any of these child care classes

43. Are you now a parent? (Choose one answer)

a. No
b. Yes. My child and I live together.
c. Yes, but I do not live with my child.

44. If you are not now a parent, what are your feelings about becoming a parent? (Choose one answer)

a. I would like to become a parent before I'm 18 years old.
b. I would like to become a parent when I'm between 18-21 years old.
c. I would like to become a parent after I'm 21 years old.
d. I do not want to be a parent.
e. I am undecided about whether or not I want to become a parent.

45. Most of my experiences in taking care of children have been (Choose one)

a. Caring for my younger brothers and sisters.
b. Caring for my own child or children.
c. Babysitting outside the family home.
d. At church or community activities (Sunday School, playground aide, etc.)
e. At a day care center or nursery school

46. What grade are you in currently?

a. Tenth grade
b. Eleventh grade
c. Twelfth grade

47. Please indicate your sex.

a. Female
b. Male

PERCEIVED CAPABILITY RATING INSTRUMENT

Minnesota

Directions:

This part is to find out how prepared you feel for being a parent. THERE ARE NO RIGHT OR WRONG ANSWERS

Read each question carefully and indicate how capable you feel RIGHT NOW to handle each situation. Mark your answer by blackening a letter on the answer sheet, as follows:

a = I do not feel capable at all to handle this situation
b = I feel slightly capable in this situation
c = I feel somewhat capable in this situation
d = I feel quite capable in this situation
e = I feel very capable of easily handling this situation

NOTICE THAT YOU BEGIN THIS PART WITH NUMBER 51 ON THE ANSWER SHEET

HOW CAPABLE DO YOU FEEL ABOUT...

51. Deciding whether or not to be a parent.

52. Choosing a healthy diet for a pregnant woman.

53. Recognizing symptoms for concern during pregnancy.

54. Knowing what can affect the baby during pregnancy.

55. Knowing what to expect during the birth process.

56. Caring for a newborn baby.

57. Caring for an infant.

58 Reading stories to a child.

59. Choosing stimulating toys for a child.

60. Helping a child develop his/her large and small muscles.

61. Teaching a child to feed himself/herself.

62. Selecting nutritious food for a child.

63. Making the home a safe place for a child.

64. Helping a child learn to talk.

HOW CAPABLE TO YOU FEEL ABOUT...(Minnesota)

a = I do not feel capable at all to handle this situation
b = I feel slightly capable in this situation
c = I feel somewhat capable in this situation
d = I feel quite capable in this situation
e = I feel very capable of easily handling this situation

65. Helping a child learn to understand his/her emotions.

66. Expressing affection to a child.

67. Helping children settle disagreements.

68. Helping a child develop confidence in his/her abilities.

69. Assisting a child with toilet training.

70. Teaching a child what he/she can and cannot do.

71. Knowing when and how to discipline a child.

72. Helping a child develop to his/her fullest potential.

73. Recognizing signs of child abuse.

74. Knowing where to seek help for family problems.

75. Choosing good child care services.

THANK YOU VERY MUCH!

TEACHER QUESTIONNAIRE

(Minnesota)

Child Development/Parenting Study

1. What is the name of your course?

2. Check the length of your class period:

   _____ 45 - 50 minutes

   _____ 55 - 60 minutes

   _____ 90 minutes

   _____ other; please specify: _____

3. Check the length of your course:

   _____ quarter - 9-10 weeks

   _____ trimester - 12-15 weeks

   _____ semester - 18 weeks

   _____ other; please specify: _____

4. Does your course involve required experience with children?

   _____ No

   _____ Yes - Check one:

      _____ Play school for 1-2 weeks

      _____ Play school for length of course

      _____ Observation away from classroom (in a child care center, etc.)

      _____ Other: _____

   Approximate number of hours of experience with children required for your students:

5. What teaching materials do you use most often? (check all that apply)

   _____ texts - Author and Title: _____

   _____ pamphlets

   _____ films

_____ filmstrips

_____ other: _____

6. Number of students in your Child Development/Parenting class: _____

7. School name: _____

   Approximate number of total students in grades 10-12 in your school: _____

8. Please list below the titles of any coursework you've completed in the areas of Child Development and/or Parenting, along with the number of credits and approximately when you took each class.

Name of Course	No. of Credits	Year Taken

If you would like to receive the results of the study, please put your name and address on the lines below

NAME_____

ADDRESS_____

_____

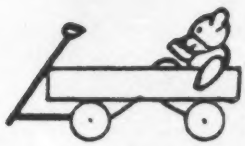
_____

HOW CAPABLE AM I .....

Zeolla, Carole A. - Ohio

For each of the statements listed below, indicate how capable you feel about handling the situation by placing a check mark (✓) in the space that best describes how you feel about handling that situation.

Also place a check mark (✓) in the appropriate space to indicate whether or not you have had the experience.



	Have you ever experienced this?		Cannot handle this	Not sure if I can handle this	Might be able to handle this	Can handle this most of the time	Very capable of handling this
	Yes	No					
1. Coping with a two-year-old's temper tantrum							
2. Feeding an infant (under 6 months)							
3. Planning activities that will hold the interest of preschool children							
4. Changing a baby's diaper							
5. Bathing and dressing an infant (under 6 months)							
6. Dealing with a stubborn child (2 to 5 years old)							
7. Caring for a child with a high fever							
8. Bathing and dressing a two-year-old child							
9. Helping a child learn to speak .							
10. Easing an infant's teething pain							

Zeolla, Carole Adrienne. An assessment of learner knowledge of child development/parent education concepts as a result of participation in a program of child development/parent education. The Ohio State University, 1980.

	Have you ever experienced this?		Cannot handle this	Not sure if I can handle this	Might be able to handle this	Can handle this most of the time	Very capable of handling this
	Yes	No					
11. Caring for a newborn baby							
12. Assisting a toddler with toilet training							
13. Teaching a toddler to feed himself/herself							
14. Caring for a child in an emergency situation							
15. Making a child aware of dangerous situations							
16. Selecting nutritious food for children							
17. Dramatizing (using puppets or acting out) stories when presenting them to children							
18. Helping children develop their imagination through make-believe play or pretending							
19. Using music (songs and simple instruments) and dance to help children express their feelings .							
20. Helping children participate in simple cooking activities ...							

ATTITUDES TOWARD PARENTING

Zeolla, Carole A. - Ohio

Read each of the statements below and then rate them as follows:

A	a	d	D
agree a lot	agree a little	disagree a little	disagree a lot

Indicate your opinion by drawing a circle around the A if you agree a lot; around the a if you agree a little; around the d if you disagree a little; and around the D if you disagree a lot.

There are no right or wrong answers, so answer according to your own opinion. It is important that you respond to all the statements.

---

1. Children should be allowed to disagree with their parents if they feel their own ideas are better.	A	a	d	D
2. Children will get on any parent's nerves if he/she has to be with them all day.	A	a	d	D
3. Some children are just so bad that they must be taught to fear adults for their own good.	A	a	d	D
4. You must always keep a tight hold of baby during his/her bath for in a careless moment the baby might slip.	A	a	d	D
5. Good parents should shelter their child from life's little difficulties.	A	a	d	D
6. Most children are toilet trained by 15 months of age	A	a	d	D
7. Children would be happier and better behaved if parents would show an interest in them.	A	a	d	D
8. Children should be encouraged to tell their parents whenever they feel family rules are unreasonable.	A	a	d	D
9. Parents very often feel that they can't stand their children a moment longer.	A	a	d	D
10. It is frequently necessary to drive the mischief out of a child before he/she will behave.	A	a	d	D
11. All young parents are afraid of their awkwardness in handling and holding the baby.	A	a	d	D
12. A parent should do his/her best to avoid any disappointment for his/her child.	A	a	d	D
13. The sooner a child learns to walk, the better he/she is trained.	A	a	d	D
14. Laughing at children's jokes and telling children jokes makes things go more smoothly.	A	a	d	D

15. A child has a right to his/her own point of view and ought to be allowed to express it. A a d D

16. It's a rare parent who can be sweet and even tempered with his/her children all day. A a d D

17. A wise parent will teach a child early just who is boss. A a d D

18. Parents never stop blaming themselves if their babies are injured in accidents. A a d D

19. A child should be protected from jobs that might be too tiring or hard for him/her. A a d D

20. The earlier a child is weaned from its emotional ties to its parents the better it will handle its own problems. A a d D

21. Parents who are interested in hearing about their children's parties, dates and fun, help them grow up right. A a d D

22. A child's ideas should be seriously considered in making family decisions. A a d D

23. Raising children is a nerve-wracking job. A a d D

24. Children need some of the natural meanness taken out of them. A a d D

25. Most parents are fearful that they may hurt their babies in handling them. A a d D

26. Parents should know better than to allow their children to be exposed to difficult situations. A a d D

27. Parents should make an effort to get a child toilet trained at the earliest possible time. A a d D

28. If parents would have fun with their children, the children would be more apt to take their advice. A a d D

29. When a child is in trouble he/she ought to know he/she won't be punished for talking about it with his/her parents. A a d D

30. It's natural for parents to "blow their top" when children are selfish and demanding. A a d D

31. It is sometimes necessary for the parents to break the child's will. A a d D

32. A parent's greatest fear is that in a forgetful moment, he/she might let something bad happen to the baby. A a d D

33. Children should be kept away from all hard jobs that might be discouraging. A a d D

34. A child should be weaned away from the bottle as soon as possible. A a d D

35. When you do things together, children feel close to you and can talk easier. A a d D

PERSONAL DATA QUESTIONNAIRE

Zeolla, Carole A. - Ohio

Listed below are some situations that might have provided you with an opportunity to spend some time working with children. Indicate the amount of experience you have had with children in each of these situations by placing a check mark (✓) in the appropriate space.

	No experience	Little experience	Some experience	Much experience
Caring for younger members of your family				
Babysitting				
Nursery school that was part of your home economics class				
Volunteer in a day care center				
Playground aide				
Volunteer in the children's unit of the hospital				
Aide in a clinic for handicapped children				
Sunday school teacher at your church ...				
Nursery aide in your church nursery				
Other (Please tell me what other experiences you have had with children.)				

Which of the following sources have contributed to your knowledge of child development or parenting? Rate the amount of information you gained from each source by placing a check mark (✓) in the appropriate space.

	None	Little	Some	Much
Home economics class(es)				
7th grade home economics				
8th grade home economics				
Consumer-Homemaking I				
Consumer-Homemaking II				
Consumer-Homemaking III				
Child Development (semester class) ..				
Family Living				
Other high school class (Please list the name of the class.)				
Child care courses that were sponsored by:				
Girl scouts				
Church group				
Welfare agency				
Community center				
Planned parenthood				
Public health clinic				
Y.M.C.A./Y.W.C.A.				
Extension and/or 4-H classes				
Adult education				
Adult family life programs				
Other (Please specify)				
Television programs on parenting				
Other television programs (Please list the name of the program)				
Magazines (Please give the titles)				

	None	Little	Some	Much
Books (Please give the titles)				
Members of your family. (Please specify which members of your family contributed to your knowledge of children)				
Neighbors				
Friends				
Doctor				
School nurse				
Teacher (Please tell me what class this teacher taught)				
Other (Please specify)				

Do you plan to marry someday? _____ yes _____ no

Are you married now? _____ yes _____ no

Do you plan to become a parent someday? _____ yes _____ no

Are you a parent now? _____ yes _____ no

How many children would your ideal family have? _____

What is your father's occupation ? _____

What is your mother's occupation? _____

What is your father's educational background? _____

What is your mother's educational background? _____

What is your age? _____ What is your sex? _____

Are you presently a:

_____ Freshman (Ninth grade)

_____ Sophomore (Tenth grade)

_____ Junior (Eleventh grade)

_____ Senior (Twelfth grade)

Which of these home economics courses have you taken?

_____ 7th grade home economics
_____ 8th grade home economics
_____ Consumer-Homemaking I
_____ Consumer-Homemaking II
_____ Consumer-Homemaking III
_____ Child Development (semester class)
_____ Family Living
_____ Other (Please give the name of the course)

Thank you for your help!

CHECKLIST TO IDENTIFY CHILD DEVELOPMENT/PARENTING CONCEPTS TAUGHT IN HOME ECONOMICS

Zeolla, Carole A. - Ohio

Listed below are some child development/parenting concepts. (1) Please indicate whether or not you teach these concepts in your Child Development course. (2) If you teach the concept, please indicate the length of time (in hours or minutes) that you use to teach this concept. (3) Also, please rate each concept according to your own perception of its importance in the curriculum.

Concepts	Do you teach this? Yes	Do you teach this? No	Time spent on this	Importance: Little		Moderately		Extremely
Section I The Child in the Family								
1. Family Planning Decisions								
2. Financial Considerations of Parenting.....								
3. Emotional Considerations of Parenting.....								
4. Environmental Considerations of Parenting.....								
5. Roles and Responsibilities of Parents.....								
Section II Prenatal Development and Birth								
1. Reproduction.....								
2. Development from Conception to Birth.....								
3. Maternal Health and Nutrition.....								
4. Birth of the Baby								

Concepts	Do you teach this? Yes	Do you teach this? No	Time spent on this	Importance: Little		Moderately		Extremely
Section III Growth and Development Throughout Childhood								
1. Physical Growth and Development								
2. Social and Emotional Development								
3. Intellectual Development								
4. Development of Creative Expression								
Section IV Parenting Practices and Child Care								
1. Child Rearing Practices								
2. Health and Nutrition of Children								
3. Safety and First Aid								
Section V Special Concerns								
1. Children With Special Needs								
2. Child Abuse								
3. Family Support Systems								
4. Child Support Services and Legislation								
5. Selection of Child Care Services								

Comments:

Teaching Strategies Rating Scale

Zeolia, Carole A. - Ohio

Please rate the following teaching strategies according to the frequency you use the strategy when teaching the child development/ parent education course.

	Never	Almost never	Some of the time	Most of the time	Almost always
1. Films					
2. Filmstrips					
3. Video tapes					
4. Slides					
5. Audio tapes					
6. Lecture					
7. Discussion					
8. Student presentations					
9. Role playing					
10. Resource persons					
11. Visits by parents with their infants and preschool age children					
12. Play school in your school					
13. Participation in a public or private day care					
14. Other - please specify					